

MASTER OF ARTS BY COURSEWORK AND RESEARCH REPORT IN THE FIELD OF
ORGANISATIONAL PSYCHOLOGY



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Flexible work arrangements, work-family conflict, and gender-role beliefs

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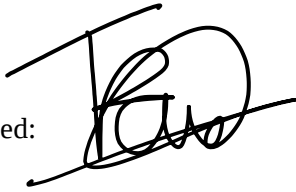
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A research report submitted in partial fulfilment of the requirements for the Degree of Master of Arts by Coursework and Research Report in the field of Organisational Psychology in the Department of Psychology, School of Human and Community Development, Faculty of Humanities, at the University of the Witwatersrand, Johannesburg, 22 October 2023

Plagiarism Declaration

I, Tashana Paulser, declare that this research project (Ethics clearance number: MAORG/22/10) is my own, unaided work. It has not been submitted before for this or any other degree or for examination at this or any other university.

Signed:

A handwritten signature in black ink, appearing to be 'Tashana Paulser', written over a horizontal line.

Date: 22 October 2023

Abstract

As the world of work continues to change and evolve, organisations have increasingly adopted flexible work arrangements which have affected the way in which many do their work. This study aimed to investigate the relationships between different types of flexible work arrangements and work-family conflict and the relationships between gender-role beliefs at home and at work and work-family conflict, as well as whether gender-role beliefs at home and at work moderated the relationships between flexible work arrangements and work-family conflict. A quantitative, non-experimental, correlational, and cross-sectional research design was used in the study. The sample consisted of 85 individuals employed in South African organisations who filled out an online survey consisting of several questionnaires. Flexible work arrangements were assessed using a self-developed Flexible Work Arrangements Scale that included the Workplace Flexibility Scale (Halinski & Duxbury, 2020). Work-family conflict was assessed using the Work-Family Conflict Scale that was developed by Carlson et al. (2000). Gendered domestic roles were assessed using a sub-scale of the patriarchal Beliefs Scale that was developed by Yoon et al. (2015), which was used to measure gender-role beliefs in the home environment. Beliefs about women at work were measured using an adapted version of the Stereotype Beliefs about Women Managers that was developed by Moore et al. (2004). Analyses included Cronbach Alpha coefficients, descriptive statistics, Pearson correlation coefficients, and hierarchical moderated multiple regression.

The results revealed that overall work-family conflict was not significantly related to and was not significantly predicted by flexi-time and flexi-place flexibility, but it was significantly and negatively related to and was significantly predicted by both proactive flexibility and reactive flexibility. Overall work-family conflict was not significantly related to and was not significantly predicted by either gendered domestic role beliefs or beliefs about women in the workplace. Gendered domestic role beliefs did not significantly moderate the relationship between flexi-time and flexi-place flexibility and work-family conflict or the relationship between proactive flexibility and work-family conflict, but they did significantly moderate the relationship between reactive flexibility and work-family conflict. Beliefs about women in the workplace did not moderate any of the relationships between flexible work arrangements and work-family conflict. The implication of these findings is that individuals' perceptions of their ability to manage family emergencies is related to their experiences of work-family conflict.

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Flexible work arrangements, work-family conflict, and gender-role beliefs

Chapter 1: Introduction

This chapter will present a brief discussion of the background and rationale for the study. It will then discuss the aims and objectives of the study and the structure of the research report.

Background and rationale

The world has evolved over the past years which has affected the world of work and how and where work is conducted. Both the Covid-19 pandemic and the Fourth Industrial Revolution have created a need to reconceptualise how work is carried out and organisations have had to adapt and adopt new work practices in order to continue to be productive (Hattingh, 2018). Many changes within the world of work can be linked to technological advancements brought about by the Fourth Industrial Revolution, which has forced multiple organisations to implement advanced technology use so as to not be left behind (Carroll & Conboy, 2020). The vision of the Fourth Industrial Revolution was to implement collaboration between machines and humans (Postelnicu & Câlea, 2019). This, however, has since been accelerated by the Covid-19 pandemic which forced governments to place their countries under severe lockdown. This meant that many employees were forced to work from home remotely using technology (Dhanpat et al., 2022). In South Africa, many within the workforce did not have Internet access or space in their household to work remotely, which made working from home very difficult (Young, 2020). However, the fast changing pace of the world of work has increased both the demand for and necessity of remote working and other forms of flexible work arrangements (Ciarniene & Vienazindiene, 2018).

Flexible work arrangements like working from home and working different hours have become more common, in some cases essential, with some organisations having been forced into these and others choosing to adopt them (Waples & Brock Baskin, 2021). Flexible work arrangements are essentially work options that allow flexibility when it comes to where and when work is completed and they have been linked to assisting employees manage work and non-work responsibilities (Allen et al., 2013). Work-family conflict occurs when the expected roles and responsibilities one has for work and family are not aligned and cause stress (Carlson et al., 2000; Kim & Gong, 2017; Mokomane, 2014; Netemeyer et al., 1996). Research has found that flexible work arrangements can reduce work-family conflict (Masuda et al., 2012; Russell et al., 2007; Weideman, 2018) but this has not been consistent across different countries (Hill et al., 2010; Masuda et al. 2012; Stamm et al., 2022). Studies also suggest that the use of

technology for work purposes during Covid-19 blurred the boundaries between the work and family domains and may have increased work-family conflict (Andrade & Petiz Louse, 2021; Ghislieri et al., 2021; Page et al., 2021). These findings suggest that more research is needed to better understand the relationship between flexible work arrangements and work-family conflict, especially because of the changes created by the Covid-19 pandemic and the Fourth Industrial Revolution.

There are also different forms of flexible work arrangements, and these may relate differently to experiences of work-family conflict. Flexible work arrangements are often defined as being able to work at different times and in different places, which are called flexi-time and flexi-place working (Crane & Hill, 2009; Dizaho et al., 2017). Halinski and Duxbury (2020) extended the idea of flexible work arrangements by defining flexibility as a way of coping. They define proactive flexibility as a process of anticipating stressors and preventing them to avoid conflict and reactive flexibility as a process of managing immediate conflicts between work and family (Halinski & Duxbury, 2020). Exploring the relationships between work-family conflict and these different types of flexible work arrangements is important, as this may help to better understand which types of flexibility are most helpful for reducing work-family conflict.

South Africa has been classified a highly multi-cultural country, home to multiple cultures, ethnicities, and beliefs (Johnston, 2015; Meier & Hartell, 2009). This includes different gender-role beliefs, which are beliefs about the different roles that are appropriate for men and women in society (Aarntzen et al., 2021; Cerrato & Cifre, 2018). In South Africa, many cultures have long-standing beliefs about gender roles; some of these include beliefs that women are less deserving of power than men and/or that women should be responsible for the home (Afolayan, 2004; Byrnes, 1996; Gouws & Kotzé, 2007). This matches with patriarchal beliefs about family and domestic roles, where women are seen as responsible for domestic chores and taking care of children (Yoon et al., 2015). It also matches with beliefs that women should play a subservient role in the workplace and are less suitable for managerial or leadership roles (Gouws & Kotzé, 2007). Gender role beliefs may affect perceptions and expectations of the roles that women should play at home and at work, and may therefore relate to work-family conflict (Aarntzen et al., 2021; Cerrato & Cifre, 2018; Mokomane, 2014). Gender-role beliefs may also change the nature of the relationships between flexible work arrangements and work-family conflict, for example, more traditional gender-role beliefs may reduce the benefit of flexible work arrangements in relation to work-family conflict or may increase the level of

conflict experienced when inflexible work arrangements are in place (Adisa et al., 2021; Naidoo & Jano, 2003). It is therefore important to understand and explore how beliefs about the different roles, types of work, and tasks people should be expected to be responsible for in work and home environments fit into the conflict people experience between work and family, and if these may change the relationship between flexible work arrangements and work-family conflict.

This is important because of the way in which the world of work and society have shifted and more research is needed to understand the complex relationships between different types of flexible work arrangements, work-family conflict, and gender-role beliefs. This study aims to add to the already available theory and research surrounding flexible work arrangements and work-family conflict and to bring awareness, because having a clearer understanding of the dynamics between flexible work arrangements, gender-role beliefs, and work-family conflict is essential. This understanding could give a base for creating different policies and interventions that may be used in the workplace to assist people in managing work-family conflict better and to increase the effectiveness of flexible work arrangements.

Aims of the study

This study looks to explore the relationships between different forms of flexible work arrangements (flexi-time and flexi-place, proactive, and reactive) and work family conflict in a sample of South African employees. It also looks to explore the relationships between work-family conflict and gender-role beliefs at home and at work, and whether gender-role beliefs at home and at work moderate the relationships between different flexible work arrangements and work-family conflict in a sample of South African employees.

Structure of the report

This report will begin with an introduction chapter with information pertaining to the background and rationale of the study as well as the aims of the study and the structure of the report. Chapter 2 will present a review of the literature available in regard to the different variables in the study, including working definitions for flexible work arrangements, work-family conflict, and gender-role beliefs, background theory such as spill-over theory and border theory, and previous studies conducted on the relationships between the variables.

Chapter 3 will present the research design, sample and sampling methods, instruments, procedures, ethical requirements, and data analysis used in the study. Chapter 4 will present the results of the study, including internal consistency reliability of the instruments, descriptive

statistics, Pearson's correlation coefficients, and multiple regression analyses. The final chapter, Chapter 5, will discuss the findings of the study, conclusions and implications, strengths and limitations of the study, and directions for future research.

Chapter 2: Literature Review

Introduction

This chapter will discuss the changing world of work and implications of the Fourth Industrial Revolution and Covid-19. It will then discuss work-family conflict and how this is defined, as well as important background theories such as spill-over theory and border theory. It will then discuss different types of flexible work arrangements and how these relate to work-family conflict. It will then discuss gender-role beliefs and how these relate to work-family conflict and how gender-role beliefs might moderate the relationship between flexible work arrangements and work-family conflict. The chapter will end with a description of the current study and the research questions.

The changing world of work

Over the centuries, technology has been responsible for changes in human skills-sets and the ways in which methods have been deployed to gain natural resources and advantages in competition and acquisition (Skilton & Hovsepian, 2018). Large changes in the ways in which technology has been used to improve the production of goods and to advance technology and commerce have been titled industrial revolutions (Skilton & Hovsepian, 2018). There have been three industrial revolutions in the past few centuries characterised by mechanical production, mass industrial production, and personal computers and the internet (Hirschi, 2018). The Fourth Industrial Revolution, which is happening currently, can be defined as “...the accelerating digitization and automation of work” (Hirschi, 2018, p.192). Schwab (2016) defines this revolution as being the combination of gene sequencing, nanotechnology, renewables, and quantum computing interacting across the physical, digital, and biological domains. Hirschi (2018) also includes artificial intelligence, 3D printing, cloud computing, and biotechnology as characteristics of this revolution. Skilton and Hovsepian (2018) also include the Internet of Things, which are “sensors and actuators embedded in physical objects, which are connected to the internet” (p.11).

The technological changes in the Fourth Industrial Revolution have and continue to drastically shift the structure of work and where and how this is done due to increased accessibility through the internet and human and machine intelligence becoming increasingly interlinked (Hirschi, 2018; Skilton & Hovsepian, 2018). Jobs have been transformed and changed during this revolution through advancements in computing speed, power, and storage and falling costs, giving rise to machine learning techniques and new job skills (Singaram & Mayer, 2022;

Skilton & Hovsepien, 2018). The rise of artificial intelligence has also led to increased worry about the job market and the impact this will have on employment (Skilton & Hovsepien, 2018). Hirschi (2018) suggests that the Fourth Industrial Revolution will have consequences for all aspects of employment, including the number of jobs available, the types of work available, the structure of the world of work, and employee career trajectories.

The Covid-19 pandemic that began in 2020 accelerated the fourth industrial revolution, especially in South Africa (Korsten, 2020). It forced South Africa and the rest of the world into a transition to remote working and schooling and industries providing services online (Korsten, 2020; Mahlaba, 2020). This meant that many employees and employers were vulnerable, large numbers of employees lost their jobs, and employers made financial losses (Kaushik & Guleria, 2020). In South Africa, the pandemic and strict lockdowns that were put in place led to changes in supply and demand, increased unemployment, job loss, food insecurity, and job insecurity, especially among groups that were already vulnerable (Arndt et al., 2020; Stiegler & Bouchard, 2020). It also meant that many employees were forced to transition to working online from remote locations (Matli, 2020). Remote working in South Africa can be challenging because of problems with electricity supply and unequal access to the internet, technology, and resources (Matli, 2020; Willie et al., 2021). Matli (2020) states that remote work can also be challenging because of issues with sense of belonging, communicating with managers, and proving productivity. Another factor for employees working from home, especially women, is responsibility for household chores and other home activities (Willie et al, 2021).

Work-family conflict

Work-family conflict is a type of inter-role conflict where the pressures of the expected roles one needs to play for work and family are said to be mutually incompatible (Carlson et al., 2000; Mokomane., 2014; Netemeyer et al., 1996). It can be defined as “...strain... which occurs when the demands of work or family make it difficult to fulfil demands in the alternative role...” (French et al., 2018, p. 284). Work-family conflict is something many people experience and it is a common source of stress (Choi, 2008). It is said to negatively influence several factors such as job satisfaction, organisational commitment, work performance, psychological distress, and general life satisfaction (Carlson et al., 2000; Choi, 2008).

Research indicates that there are two forms of work-family conflict, which are when family interferes with work and work interferes with family (Carlson et al., 2000). There are also three forms of work-family conflict: time-based conflict, strain-based conflict, and behaviour-based

conflict. Time-based conflict is said to occur when one dedicates more time to one role or task that makes it harder to engage in another role; strain-based conflict is strain one may experience in a role that may affect and interfere with one's participation in another role; and, lastly, behaviour-based conflict happens when the behavioural expectations in a certain role are conflicting with the behavioural expectations of another (Carlson et al., 2000). Each of the three forms can take on both work-family conflict directions, that is, conflict due to one's work interfering with family and conflict because of family interfering with work. Combining the two directions of work-family conflict with the forms of work-family conflict results in what Carlson et al. (2000) identify as: time-based work-interference-with-family (WIF), time-based family-interference with work (FIW), strain-based work-interference-with-family (WIF), strain-based family-interference with work (FIW), behaviour-based work-interference-with-family (WIF), and behaviour-based family-interference with work (FIW).

According to Mokomane (2014), work-family conflict can be considered through two contradictory perspectives: the expansion hypothesis and the role-conflict hypothesis. The second perspective, the role-conflict hypothesis, states that time and personal energy, conflict with one another in terms of resources and quantity. People who hold several social roles experience conflict, leading to strain and stress on themselves, their families, and their work (Mokomane, 2014). An example of role-conflict hypothesis is when one's job constantly needs one to work overtime, this limits the time one gets to spend at home and creates conflicting family demands (Mokomane, 2014).

A theory that can be used to further explain the work-family conflict experienced by individuals is the work-family border theory. This theory states that people are daily border crossers constantly transitioning between two worlds; these being the world of work and the world of family (Clark, 2000). By being part of these worlds, individuals are shaped by these worlds which may also influence each other; and certain individuals may struggle to transition from each domain to the other while other individuals may find that the transition is easy (Clark, 2000). The theory argues that individuals shape the borders between the worlds of work and family and therefore make decisions based on the type of relationship they have with these worlds and the people within these worlds in order to gain balance (Clark, 2000). Work-family border theory states that individuals will experience greater work/family balance when they have a stronger bordered domain, in this case borders being when a certain behaviour relevant to a domain begins and ends (Clark, 2000). The borders take three main forms: physical, which can be the walls of the workplace and home; temporal, being times or hours given to work and

home responsibilities; and, lastly, psychological borders which are rules created by an individual about the appropriateness of one's thinking, behaviour, and emotions within a given domain (Clark, 2000). The borders between work and family are said to vary across occupations and individuals in how permeable, flexible, and strong they are; and the theory states that positive and negative spill-over will be higher for permeable, flexible, and weak borders/boundaries which may lead to higher levels of work-family conflict (Lourel et al., 2009).

Roehling et al. (2003) define spill-over as the "...transfer of mood, affect, and behaviour between work and home" (p. 101); they state that it occurs when the experiences of one domain affect and influence the other domain. People take on different roles daily and, at times, a certain role may impact another role or roles due to the struggle to balance these. Research has shown that holding multiple roles may benefit individuals psychologically, such as ego gratification, status, and increased self-esteem; however this can also increase one's stress levels, role strain, psychological distress, and somatic complaints (Williams & Alliger, 1994).

Spill-over between domains can therefore be positive or negative. Positive spill-over is said to occur when satisfaction and stimulation at work or home manifest into high levels of energy and satisfaction at home or work (Roehling et al., 2003). Negative spill-over occurs when problems and conflicts at work or home exhaust and take up individuals' time, leading to conflict or one's behaviour and experiences with their family or at work being negatively impacted (Roehling et al., 2003). Negative spill-over can therefore be looked at on the basis of its directionality. The one direction being negative work-family spill-over, which takes place when work roles and job demands push into family life, and the other direction being negative family-work spill-over, which happens when family roles interfere with work tasks (Kim et al., 2017).

Spill-over is something that affects one's wellbeing, functioning, and participation at work and at home and it has important ramifications (Standen et al., 1999). Research shows that negative spill-over and work-family conflict are associated with higher rates of absenteeism, exhaustion, and turnover, problems in the workplace, higher levels of burnout, and lower levels of job commitment, productivity, work quality, and job satisfaction (Mokomane, 2014; Rahman et al., 2018; Roehling et al., 2003). According to Judge et al. (2006), work-family conflict can generate emotional reactions of guilt and hostility at work. They also found that increased work-to-family conflict experienced was related to less marital satisfaction, and this

relationship was mediated by guilt and hostility. According to Zakaria and Ismail (2017), work-family conflict can negatively affect individuals by causing emotional fatigue, leading to stress and ultimately disturbing the psychological well-being of an individual.

There are many negative effects that can be brought about by work-family conflict and one way in which these can be addressed is through proper support from managers and others to alleviate the stress experienced (Roz, 2014; Zakaria & Ismail, 2017). Providing adequate training can also reduce work-family conflict, as this makes employees feel better equipped to fulfil all the demands of their positions so that they are less likely to feel overwhelmed or stressed (Roz, 2014). Ensuring that an employer has built a positive working culture can also be helpful (Roz, 2014). Another possibility is the adoption of flexible working arrangements, which may effectively address work-family conflict because when employees have little control over their own schedules, stress can increase (Chandola et al., 2015). Employees may feel as though they are being forced to choose between work and family activities, leading to them carrying their work stress home or home stress to work, and it is therefore essential that they feel as though they have more control over their schedules (Allen et al., 2013). Flexible working has become increasingly popular due to its benefits for employees and productivity (John, 2017). Organisations can utilise flexible-work arrangements to help employees manage their work demands and home duties, minimising work-family conflict and negative spill-over (Kim et al., 2019).

Flexible work arrangements

Flexible work arrangements have been around for centuries and are not a recent phenomenon. However, since the recent shift in the world of work due to the Fourth Industrial Revolution and the Covid-19 pandemic, they have become more prevalent and beneficial in many cases. They have been implemented to help employees better manage their work and personal responsibilities (Crane & Hill, 2009). Flexible work arrangements can be defined as the “negotiated terms of employment related to the timing and/or place of work” (Crane & Hill, 2009, p. 267). They involve being able to shift the location in which one decides to work which is referred to as flexi-place and when one wants to work which is referred to as flexi-time (Crane & Hill, 2009; Dizaho et al., 2017). There are four different types of flexible work arrangements identified by Kossek and Michel (2011), namely: flexibility with regard to the time when one works, commonly known as flexi-time; flexibility in terms of the place or location one works, commonly known as flexi-place; flexibility in terms of the workload or

amount of work one has; and lastly flexibility in terms of short-term and long-term breaks at work and time off.

Flexi-time refers to the times at which employees arrive and leave the workplace, which allows for individualised time allocation towards personal needs (Kossek & Michel, 2011). Flexi-time options can include: flexible working hours, where employees can vary the starting and ending times for their work; a compressed work week, where they can work more hours on certain days and not at all on others; time-in-lieu, where they can work approved overtime and then take time off when they would normally be working; reduced hours, where employees can alter the number of hours they work for a time; and job-sharing, where the work for a job role is shared between several employees (Björntoft et al., 2020; Eldridge & Nisar, 2011; Kossek & Michel, 2011; Nwekpa et al., 2020). Flexi-place refers to providing employees with more options on where they can work outside of their organisational setting (Schiff, 1983). Flexi-place options can include working from home (either formally from a home office or informally in the home environment); and telecommuting, where employees can use technology to work remotely from any place other than their official place of work (Crosbie & Moore, 2004; Kossek & Michel, 2011).

Halinski and Duxbury (2020) extended the idea of flexible working arrangements by drawing on the theory of coping to develop a multi-dimensional measure of flexibility at work. They define coping as “...cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Halinski & Duxbury, 2020, p. 151). According to Halinski and Duxbury (2020), Thompson et al. (2007) identified two approaches that could be used by individuals to cope with work-family conflict: proactive flexibility and reactive flexibility. Proactive flexibility is the process of anticipating possible stressors in advance in order to prevent them and can be used to avoid future work-family conflict (Halinski & Duxbury, 2020). Some examples are adjusting work hours and being able to work from home. Reactive flexibility is the process of responding to and managing immediate conflicts between work and family (Halinski & Duxbury, 2020). An example is being able to take time off if a family member is sick or needs help. People can therefore actively make decisions to ensure that their work does not spill into their family domain by preventing any potential stressors if they have high proactive flexibility and can manage unpredictable family demands effectively if they have high reactive flexibility (Halinski & Duxbury, 2020). According to research, the best way to deal with stress is to use healthy forms of both proactive and reactive flexibility (Halinski & Duxbury, 2020).

Flexi-time and flexi-place schedules allow employees to vary when and where they work and can therefore help employees to both proactively and reactively manage ongoing and unexpected work and family demands (Halinski & Duxbury, 2020). It is, however, important to ensure that a level of balance is preserved so that employees still complete the work they are required to and can be available as needed, especially for meetings or teamwork (Baltes et al, 2009). However, even with this balance, flexible work arrangements are said to aid in reducing the degree of work-life conflict experienced by employees, as they can change and adapt the time they allocate to work and job responsibilities and family and non-work responsibilities more easily and therefore give much needed attention to both domains (Allen et al., 2013; Crane & Hill, 2009; Halinski & Duxbury, 2020; Mokomane, 2014). It is important to also consider the disadvantages of flexible work arrangements. Working flexibly often includes working from home, which can make it difficult to maintain a clear separation and balance between work and home (Desrochers & Sargent, 2004; Saungweme, 2010). Individuals may work beyond set working hours or might not have a suitable work environment in their home space (Matli, 2020). Employees working flexibly may procrastinate or be less productive, because working independently requires a high level of self-motivation (Bočková & Lajčín, 2021). They might also be more isolated and have less contact with other employees (Matli, 2020; Mehta, 2022). In South Africa, employees working flexibly may have communication difficulties such as load shedding (rolling power blackouts) and network issues (Fouche & Andrews, 2022; Matli, 2020; Willie et al., 2021).

Srivastava (2011) states that both telecommuting and part-time work can be seen as a viable option for individuals to reduce work-life conflict but this depends on several factors, including: the type of job or job role and whether this allows for flexibility; career aspirations and the degree of choice involved in working flexibly; subjective understandings and meanings of work and time; and whether there is a good match between employees' desired working hours and how much they need to work and if their economic and emotional needs can be met.

Flexible work arrangements and work-family conflict

Looking at the association between flexible work arrangements and work-family conflict, a study conducted by Russell et al. (2007) in Ireland investigated the relationship between flexible work arrangements, work pressure, and work-life conflict. The study found that part-time work and flexi-time tended to decrease work pressure and work-life conflict (Russell et al., 2007). However, they also found that working from home was related to higher levels of work pressure and work-life conflict (Russell et al., 2007). In a study conducted by Masuda et

al. (2012), they explored the availability of flexible work arrangements and their relationship with manager outcomes of job satisfaction, turnover intentions, and work-family conflict. They found that managers working in companies that offered flexi-time were highly satisfied with their work and were less likely to report experiencing time-based and strain-based work-family conflict (Masuda et al., 2012). A study conducted by Conradie and de Klerk (2019) investigated the use and outcome of flexible working-time hours and telecommuting amongst a sample of South African software developers in an emerging economy. The study found that employers in the South African software development sector have adopted many flexible work arrangements and those that used flexible work arrangements found them beneficial for themselves and their organisations (Conradie & de Klerk, 2019). Flexible work arrangements were also found to correlate with increased levels of engagement and performance. Weideman (2018) conducted a study that looked to explore the influence flexible work arrangements have on employee engagement. The sample consisted of 23 participants, 8 subject matter experts and 15 employees within six different organisations in South Africa; and semi-structured, in-depth, face-to-face interviews were conducted. The study found a positive relationship between flexible work arrangements and employee engagement, as well as a positive influence that flexible work arrangements had on employee well-being (Weideman, 2018).

Given the multiple research findings presented, there is a common theme of the benefits flexible work arrangements have to offer, one of these benefits being lower levels of work-family conflict. There is, however, also an indication of possible contradictory findings related to working from home and whether this may increase work-family conflict, which is therefore important to explore further. Research conducted by Hill et al. (2010) also found that work-at-home and perceived schedule flexibility were related to less work-family conflict. However they also found that their results were consistent across the countries that had a more individualistic culture and that there appeared to be less benefit in countries with a more collectivist culture. This finding further adds to the need for more research in countries such as South Africa where there are several cultures and ethnicities and it is considered an individualistic and collectivist society (Eaton & Louw, 2000).

Several studies have reported a massive use of mandatory remote work since the outbreak of Covid-19 where many employees have had to adapt to the use of technology (Andrade & Petiz Louse, 2021; Ghislieri et al., 2021). Studies suggest the increased use of technology for work purposes and generally as a result of Covid-19 restrictions blurred the boundaries between the work and family domain, which may have led to an increase in work-family conflict (Andrade

& Petiz Louse, 2021; Ghislieri et al., 2021; Page et al., 2021). The use of telework and remote working prior to Covid-19 was considered mostly beneficial in allowing for a better balance between family and work (Ghislieri et al., 2021). However since the increased use of telework and remote work due to the Covid-19 pandemic, studies have reported higher levels of work-family conflict, increased tele-pressure, burnout, and perceived information and communications technology ICT stress (Andrade & Petiz Louse, 2021; Ghislieri et al., 2021; Page et al., 2021). A study conducted by Ghislieri et al. (2021) found that there was a positive relationship between work-family conflict and perceived ICT stress, off-work-hours technology-assisted job demands, and cognitive demands.

Given the current studies available regarding the negative impacts the increased use of technology and remote working since Covid-19 has had on employees, more research is needed to explore the relationship between flexible working arrangements and work-family conflict because of the increasing sophistication of technology and being able to move more easily between different environments in terms of completing actual work, as well as changes in the nature of work created by the Covid-19 pandemic, and how these might link to a complex set of relationships between work-family conflict and flexible work arrangements. More research is needed in the South African context to better understand the complex nature of the relationships between different types of flexible work arrangements and work-family conflict experienced by working professionals.

Gender-role beliefs

Gender role beliefs are shared beliefs applicable to individuals on the basis of their socially identified sex on the basis of the division of labour within most societies (Cerrato & Cifre, 2018). Aarntzen et al. (2021, p.122) define gender role beliefs as: "...widely held beliefs about what roles are appropriate for men and what roles are appropriate for women". Men and women have held certain roles in society for centuries. Beliefs about these roles are varied and range from the belief that women should participate freely and equally, be it at home or in the workplace; to the belief that women belong at home and should only participate in activities within the domestic sphere while men are classified as the protectors and providers for their households (Aarntzen et al., 2021; Alesina et al., 2013). Women's roles in society have shifted from what they once were decades ago, especially because the employment of women became widespread during the Second World War because of the shortages of labour at the time due to the men having gone away to fight (Mokomane, 2014). However there are still inequalities

between men and women in certain cultures, countries, and households even with these changes.

It is said that individuals who believe in the traditional gender roles tend to support the woman's role as a caretaker at home and in the family and the man's role as a provider of financial support (Cerrato & Cifre, 2018). This matches with patriarchal beliefs about family and domestic roles, where women are seen as responsible for domestic chores such as cleaning and cooking and acting as the primary caregiver for children in the family; while men are seen as being responsible for finances and discipline (Yoon et al., 2015). This places a much greater emphasis on a man pursuing a career compared to a woman pursuing a career or working, which has implications for the roles expected of women in the workplace. In many workplace cultures, it is still common for women to be expected to play a more subservient role and to be seen as less suitable for managerial or leadership roles than men (Gouws & Kotzé, 2007). Women are also sometimes seen as less capable or committed to their work than men; and may be judged using different standards and offered less organisational support (Moore et al., 2004; Nupen & Jagernath, 2020; Toscano et al., 2020).

In South Africa, many cultures have long-standing beliefs about gender roles; some of these include beliefs that women are less deserving of power than men and/or that women should be responsible for the home (Afọlayan, 2004; Byrnes, 1996; Gouws & Kotzé, 2007). Khuzwayo (2016) states that gender inequality at work continues to be a challenging issue that South African society has to deal with due to the high level of patriarchy that still exists. In South Africa, patriarchy also still influences how the different sexes relate to each other generally, leading to experiences of inequality amongst women within various spheres of society (Khuzwayo, 2016). Traditionally workplaces in South Africa have had white men in leadership positions, however it was thought that this would change due to the adoption of democracy, the Employment Equity Act, and affirmative action (Jaga et al., 2018). However, according to several participants from the study conducted by Jaga et al. (2018), there has not been much change and most white and male-dominated organisations have not fully delivered on racial and gender equality. The Women Empowerment and Gender Equality bill attempted to increase the equal participation of women in society and the economy and to ensure equal representation of women in leadership roles in private and public sectors (Jaga et al., 2018). However, regardless of the policies implemented, the authors and participants noted that women in South Africa specifically find themselves not as integrated as they would like, as they have to negotiate race, gender, work, and family (Jaga et al., 2018). According to Jaga et al. (2018), in

South Africa a growing number of women have rejected their traditional familial roles and are looking for financial independence and to develop their individual careers.

Gender-role beliefs and work-family conflict

According to Dicke et al. (2019, para. 1) “...gender roles predict one’s educational and occupational aspirations and choices”. Societal, cultural, and personal expectations and beliefs about suitable gender roles in the home and work environment may therefore affect career goals and perceptions of success for both genders which may lead to strain and negative levels of life satisfaction (Başlevent & Kirmanoğlu, 2017; Brown, 2002). Cerrato and Cifre (2018) state that family-work conflict arises when one participates in a family role, creating difficulty in participating in work, as well as when one participates in their work-role which hinders their participation at home; these situations can increase strain-based, time-based, and/or behaviour-based work-family conflict. Research has shown that one may experience conflict between work and home roles because of limited time, high-stress levels, as well as competing behavioural expectations (Cerrato & Cifre, 2018).

Research has been conducted regarding traditional gender role beliefs and how this could be linked to an increase in work-family conflict. Cerrato and Cifre (2018) conducted a study with a sample of 515 Spanish men and women and found that women were more involved in household chores than men and that perceptions of partner involvement were lower in women than in men. They also found that there was an increase in marital conflict due to household chores which increased work conflict for both men and women and family conflict only for women. This is an indication that traditional gender role beliefs, which are that men need to work and be breadwinners in their households and women are responsible for household chores and the children, have an effect on how men and women manage the work and family interaction (Cerrato & Cifre, 2018). In another study exploring the relationships between gender role beliefs, gender norms, and work-family guilt, Aarntzen et al. (2021) found that mothers who subscribed to more traditional gender role beliefs and both mothers and fathers who subscribed to more egalitarian gender role beliefs experienced more guilt when they worked longer hours, however fathers who subscribed to more traditional gender role beliefs did not experience more guilt when they worked longer hours. In a study conducted by Kim and Ling (2001) it was found that there was an increased need for greater spouse or family support, flexible work schedules, and full-day school for working mothers and women in order to alleviate work-family conflict and to ensure that the use of flexible-work arrangements was beneficial. A study conducted in South Africa using a sample of 100 female factory workers in

East London looked at the relationship between work-family conflict and selected demographic variables (age, marital status, number of children, age of the youngest child) and found that age, the number of children an employee had, and the age of their youngest child were all positively correlated to work-family conflict (Mjoli et al., 2013). Another study with a sample of 20 Hindu mothers in South Africa looked to understand the interplay between cultural values and work-family conflict. The mothers were full-time paid employees that participated in individual in-depth interviews and the authors found that there were three main themes that developed: a strong collective identity in relation to family, traditional gender beliefs, and family deference (Jaga & Bagraim, 2017). The authors concluded that culture helped to shape perceptions of work-family conflict and that perceptions of the roles women were expected to play in the household formed a major part of this (Jaga & Bagraim, 2017). The findings from these studies support the idea that family responsibilities and gender role beliefs may have an important relationship with experiences of work-family conflict and are important for the understanding the work-home interface.

South African data from the 2000 Time Use Survey Africa indicated that every day women in South Africa “spend more than double the time men spend on household maintenance and care of persons, but less time than men on learning, social and cultural activities” (Mokomane, 2014, p. 138). This is said to result in ‘the wage penalty of motherhood’ (Mokomane, 2014, p.139), which is that mothers and other women with caring responsibilities are likely to be earning less than what they could be earning due to so much time being allocated to family responsibilities. There is also gender segregation in different occupations in South Africa with men and women employed in different types of occupations across different fields because of gender bias and stereotypes about the type of work men and women should take on (Mokomane, 2014). For example, men are often seen as leaders while women are expected to take on more submissive roles or menial jobs (Mokomane, 2014). According to Mokomane (2014), women also consciously select “mother friendly” jobs and part-time work which are seen as easier to mix with parenting and care work. This can limit their career progression and lead to lower pay and a lack of promotional opportunities due to the unconscious and conscious decisions they make to accommodate their family responsibilities. Research has also indicated that women may be more exhausted, more distracted, and less productive at work because of their caring responsibilities at home (Mokomane, 2014). This suggests that women may be more prone to work-family conflict due to the pressure of ensuring that their family responsibilities are constantly catered to before they tend to their workplace responsibilities.

Work-family conflict may also become worse in cases where there are strong beliefs related to gender roles that conflict with the nature of the work-related and/or family-related tasks the individual is expected to carry out. According to Mapedzahama (2014), women in Zimbabwe and other parts of Africa such as South Africa are traditionally known to be primary care givers who raise children whilst earning an income, which may be why they are prone to experiencing more strain than their western counterparts due to negotiating between work and family roles. Mokomane (2014) indicates that the world has shifted slightly away from the role of the male as a sole provider to dual-earning households, increasing the demands made by employment and the challenges amongst workers to combine domestic and family tasks and work responsibilities. It is therefore important to consider the relationships between gender-role beliefs and work-family conflict in more detail in the South African context for both men and women.

Flexible work arrangements, work-family conflict, and gender-role beliefs

The relationships between different types of flexible work arrangements and the different forms of work-family conflict are complex; although research largely suggests that flexibility is helpful for reducing work-family conflict, there are also some findings that suggest that certain forms of flexible work arrangements may increase work-family conflict, especially since the outbreak of Covid-19 (Andrade & Petiz Lousa, 2021; Grice et al., 2008). There is a need for more research to explore this and also to establish the nature of the relationships between flexible work arrangements and work-family conflict in the South African context. This is especially critical given the recent rapid changes due to technology, the COVID-19 pandemic and its impact on the different genders, and the unique culture of the country (Afolayan, 2004; Casale & Shepherd, 2021).

Gender-role beliefs for both the home and work environment may also play an important role in predicting experiences of work-family conflict, especially in South Africa where there is a background of more traditional patriarchal gender-role beliefs and studies indicate that the pressures and stresses of work-family conflict are higher for South African women (Mokomane, 2009; Naidoo & Jano, 2003). Gender-role beliefs may also change the nature of the relationships between flexible work arrangements and work-family conflict, for example, more traditional gender-role beliefs may reduce the benefit of flexible work arrangements in relation to work-family conflict or may increase the level of conflict experienced when inflexible work arrangements are in place (Adisa et al., 2021; Naidoo & Jano, 2003). Gaining a better understanding of the relationships between flexible work arrangements, work-family

conflict, and gender role beliefs and exploring the extent to which gender role beliefs may moderate the relationships between flexible working arrangements and work-family conflict is therefore valuable for understanding these dynamics further.

The current study

This study will focus on exploring the relationships between different forms of flexible work arrangements such as flexi-time and flexi-place, proactive, and reactive flexibility, and work family conflict, including work-to-family and family-to-work conflict. It will also explore how these relationships might be moderated by gender-role beliefs at home and at work. There is a lot of literature on flexible work arrangements and work-family conflict however there is less recent research that has explored this, especially in South Africa, and this is important in relation to the changes that society has experienced such as the Fourth Industrial Revolution and its acceleration by the Covid-19 pandemic. There is also relatively little research that has explored gender role beliefs and how these may be associated with work-family conflict and the relationships between flexible work arrangements and work-family conflict. It is possible that gender role beliefs may change the nature of the relationship between work-family conflict and flexible work arrangements but more research is needed to investigate this.

Research questions

The research questions in the current study are:

Question 1: What are the nature of the relationships between flexible work arrangements (flexi-time and flexi-place, proactive, and reactive flexibility) and work-family conflict (work-to-family conflict and family-to-work conflict) in a sample of South African employees?

Question 2: What are the nature of the relationships between gender-role beliefs (for home and work) and work-family conflict (work-to-family conflict and family-to-work conflict) in a sample of South African employees?

Question 3: Do gender-role beliefs (for home and work) moderate the relationships between flexible work arrangements and work-family conflict in a sample of South African employees?

Chapter 3: Methods

Introduction

This chapter will discuss the research design, sample and sampling, instruments, and procedure used in the current study, as well as the ethical considerations and the data analyses used in the study.

Research design

The design for the study was quantitative, non-experimental, correlational, and cross-sectional (Haslam & McGarty, 2014). Quantitative research methods are based on the testing of objective phenomena by exploring or examining the relationships between variables (Creswell, 2009). The variables are measured using instruments such as questionnaires or surveys which provide numerical data representing trends, attitudes, or opinions in the sample; this is so that the numbered data can be analysed using statistical procedures (Creswell, 2009). For this study, the variables that were measured included gender-role beliefs at home and at work, work-family conflict, and flexible work arrangements. For this study, there was no random assignment of participants, no control or experimental groups, and no variables were manipulated hence the design was non-experimental (Haslam & McGarty, 2014). This form of design was appropriate for this study as it intended to examine relationships between the variables, which is why it was also correlational (Field, 2017). The study was cross-sectional because it described the variables at one point in time (Simkus, 2023).

Although this type of study is valuable as a way to explore the associations between the variables, it is not possible to draw any causal conclusions from this type of study (Haslam & McGarty, 2014). Other limitations are that one needs to obtain a large number of participants for statistically accurate findings, information given by participants in the questionnaires or surveys may be incomplete or inaccurate, and the data received may not take into account the context of the participant (Acme, 2021; Chetty, 2022).

The study was based in the post-positivist paradigm. This includes assumptions that reality is objective and should be investigated rationally and empirically, knowledge is socially constructed, and the researcher should focus on observation to understand and explain events (Goduka, 2012).

Sample and sampling

The target population for this study consisted of South African employees who were employed within any organisation. The participants needed to be over the age of 18 years old and needed to be fluent in English. They also needed to have access to a suitable device that could connect to the internet, as well as enough data or Wi-Fi in order to respond to the survey. Participation was open to all employees of any organisation in South Africa - participants did not need to have any flexible work arrangements in place and did not need to be office workers as long as they were employed by an organisation in some capacity. There were no other requirements for participation and no restrictions in terms of gender, race, ethnicity, size of organisation, type of job, field of work, relationship status, and level of education. Having a larger sample size increases the chances of producing reliable results from the sample participants that can be applied to a wider population, therefore the intention in the study was to obtain as large a sample as possible to improve generalisability (Laher, 2016).

Non-probability convenience sampling and non-probability snowball sampling were used for this study (Haslam & McGarty, 2014). Non-probability convenience sampling occurs when there is non-random selection of participants from the population based on accessibility making it easier to collect data (McCombes, 2019). The use of snowball sampling assists in recruiting more participants based on those who are invited to take part in the study helping to inform others who fit the criteria and who may be interested in participating about the study about the invitation to participate (Stangor, 2014). In this study, participants were recruited through various social media platforms, such as Facebook, LinkedIn, Instagram, WhatsApp and Twitter - an invitation (please see Appendix B) was posted with a request to forward this to as many people who fitted the criteria and who might be interested as possible. All of the participants were volunteers who agreed to take part in the study after receiving the invitation. Non-probability convenience and non-probability snowball sampling were chosen for this study because these were practical and appropriate strategies that could be used to obtain the sample given the time and resources available.

The initial sample size obtained for this study was 87 participants, however 2 participants were removed due to largely incomplete surveys, making the final sample size 85. This sample size was much smaller than the required sample size indicated by sample size calculations using a 95% confidence interval, which was approximately 385 participants (Qualtrics, 2023). It was, however, not possible to obtain a larger sample due to limited time and resources. The small sample size was a major limitation in the study.

The mean age in this sample was approximately 35 years ($M = 35.02$; $SD = 9.74$). There were 43 participants (50.6%) who were aged 35 years and below and 41 participants (48.2%) who were aged 36 years and above, with 1 missing response (1.2%). A majority of the sample was female ($n = 67$ (78.8%)) with only 18 male participants (21.2%) in the study. The sample consisted mostly of employees who identified as Black ($n = 54$ (63.5%)), followed by those who identified as White ($n = 14$ (16.5%)), Coloured ($n = 10$ (11.8%)), Indian ($n = 6$ (7.1%)), and Asian ($n = 1$ (1.2%)). There were a variety of different home languages spoken by the sample in this study. Most employees ($n = 43$ (50.6%)) spoke English as a home language, 17 employees (20.0%) spoke isiZulu as a home language, 6 employees (7.1%) spoke seSotho as their home language, 5 employees (5.9%) spoke isiXhosa as a home language, and 4 employees (4.7%) spoke seTswana as their home language. There were 2 participants (2.4%) who spoke Afrikaans as a home language and 2 participants (2.4%) who spoke sePedi as a home language, and 1 participant (1.2%) each who indicated that their home language was French, Shona, siSwati, and Xitsonga. One participant (1.2%) indicated that they spoke both English and isiZulu as home languages, and 1 participant (1.2%) indicated that they spoke both English and Shona as home languages.

The sample consisted of 33 participants (38.8%) who were married, 29 participants (34.1%) who were single, 20 participants (23.5%) who were in relationships, and, lastly, 3 participants (3.5%) who were divorced. For number of children, 38 participants (44.7%) did not have any children, 19 participants (22.4%) had one child, 16 participants (18.8%) had two children, 9 participants (10.6%) had three children, 1 participant (1.2%) had four children, and 2 participants (2.4%) did not indicate how many children they had. Regarding the living status of the participants, 28 participants (32.9%) resided with their partner and children, 17 participants (20.0%) resided with close family, 15 participants (17.6%) resided alone, 10 participants (11.8%) resided with their child or children only, 8 participants (9.4%) resided with their partner only, 3 participants (3.5%) resided with their partner, children, and close family, 2 participants (2.4%) resided with close family and children, and 2 participants (2.4%) resided with roommates/friends. There were 14 participants (16.5%) who lived alone in their households, 16 participants (18.8%) who had 2 people living in their households, 18 participants (21.2%) who has 3 people living in their households, 19 participants (22.4%) who had 4 people living in their households, 11 participants (12.9%) who had 5 people living in their households, 6 participants (7.1%) who had 6 people living in their households, and, lastly, 1 participant (1.2%) who had 7 people living in their household.

The sample consisted of 48 employees (56.5%) who had worked less than two years in their jobs and 37 employees (43.5%) who had worked more than two years in their jobs. On average, participants had worked for 3.54 years in their job with a standard deviation of 4.13. There were 78 full-time employees (91.8%), 2 part-time employees (2.4%), and 5 temporary/contract-based employees (5.9%). On average, participants reported working 8.62 hours per day with a standard deviation of 2.0 and 43.31 hours per week with a standard deviation of 11.72. In the study, 32 employees (37.6%) had low levels of flexibility regarding time, 49 (57.6%) had high levels of flexibility regarding time, and 4 employees (4.7%) were missing due to incomplete information. Time flexibility included being able to work flexible working hours, a compressed work week, time-in-lieu, reduced hours for a limited period, job-sharing, or any other varied arrangement for working hours. For flexible work location, 45 employees (52.9%) had low levels of location flexibility in their schedules, meaning their jobs did not allow for options such as working from home, telecommuting, or any other flexible work location. There were 36 participants (42.4%) who had high levels of location flexibility and 4 employees (4.7%) had incomplete information and were classified as missing. Overall there were 28 employees (32.9%) who experienced low levels of general flexibility in their work schedules and 53 employees (62.4%) who experienced high levels of general flexibility in their work scheduled, with 4 (4.7%) missing responses.

Some employees in the sample had help within their households such as a full-time domestic helper (n = 23 (27.1%)), a part-time domestic helper (n = 35 (41.2%)), an au-pair/childminder (n = 4 (4.7%)), a gardener (n = 38 (44.7%)), or a driver (n = 3 (3.5%)). In the work environment, 4 employees (4.7%) had childcare facilities in their workplace, 6 employees (7%) had work-family seminars, 49 employees (57.6%) had wellness/health programmes, and 41 employees (48.2%) had employee assistance programmes. There were 31 employees (36.5%) whose workplace offered education funding for themselves and 8 employees (9.4%) whose workplace offered education funding for their families. There were 68 employees (80.0%) whose workplace gave them emergency family leave and 70 employees (82.4%) whose workplace gave them parental leave (for a full breakdown of all the sample characteristics, please refer to Table 1 in Appendix G).

Instruments

The participants were provided with a link to an online questionnaire consisting of a self-developed demographic questionnaire (please see Appendix C), a self-developed Flexible Work Arrangements Scale (please see Appendix D) that included the Workplace Flexibility

Scale (Halinski & Duxbury, 2020), the Work-Family Conflict Scale (please see Appendix E) that was developed by Carlson et al. (2000), the Gendered Domestic Roles subscale of the Patriarchal Beliefs Scale (please see Appendix F) that was developed by Yoon et al. (2015), and an adapted version of the Stereotype Beliefs about Women Managers (please see Appendix F) that was developed by Moore et al. (2004).

Demographics

A self-developed demographic questionnaire (please see Appendix C) was used to gather information about the participants to help explain the characteristics of the sample group. The demographic questionnaire asked participants to fill in their age, gender, race, home language, marital status, living arrangements, occupation and type of industry, years present within the given organisation and position, programmes present within their organisations, and whether they had any domestic or general help at home.

Flexible work arrangements

A self-developed Flexible Work Arrangements Scale (please see Appendix D) that included the Workplace Flexibility Scale (Halinski & Duxbury, 2020) was used to measure flexible work arrangements. This scale looked to measure the flexible working arrangements participants had access to and utilised and how easy it was for them to adopt a more flexible working schedule or arrangement. It included questions about type of current employment, hours worked per week and per day, and how often participants utilised certain types of flexible work arrangements (answered on a 6-point Likert-type scale with options ranging from ‘not allowed’ to ‘every day’). Questions for flexi-time and flexi-place work arrangements included how often participants were able to work from home, work flexible working hours, work a compressed work week, work time-in-lieu, work reduced hours for a limited period, job-share, telecommute, or work any other varied arrangement for working hours or work location.

The scale also included the Workplace Flexibility Scale (Halinski & Duxbury, 2020), a 7-item scale that assesses how easy or difficult it is for participants to change their working hours to fit family requirements. It has two subscales – proactive flexibility and reactive flexibility – and each item is answered on a 5-point Likert-type scale ranging from ‘very difficult’ to ‘very easy’. An example item for proactive flexibility is “To arrange your work schedule (i.e. shifts, overtime) to meet personal/family commitments”, and an example item for reactive flexibility

is “To take a day off work when a child or relative is sick”. Halinski and Duxbury (2020) generated a Cronbach Alpha of .80 for factor 1 (proactive flexibility) and a Cronbach Alpha of .86 for factor 2 (reactive flexibility) in their study, which suggests that the subscales had good internal consistency reliability.

Work-family conflict

The Work-Family Conflict Scale (please see Appendix E) that was developed by Carlson et al. (2000) was used to measure work-family conflict. The scale consists of 18 items and responses are recorded on a 5-point Likert-type scale ranging from ‘strongly disagree’ to ‘strongly agree’. It has six subscales –strain-based work interference with family; strain-based family interference with work; time-based work interference with family; time-based family interference with work; behaviour-based work interference with family; and behaviour-based family interference with work. These six subscales each give a score representing time-based, strain-based, or behaviour-based work-to-family or family-to-work conflict. The time-based, strain-based, and behaviour-based work-to-family conflict subscales can also be added together to give an overall score for work-to-family conflict, and the time-based, strain-based, and behaviour-based family-to-work conflict subscales can be added together to give an overall score for family-to-work conflict (Carlson et al., 2000). All of the subscales can also be added together to give an overall score representing general work-family conflict (Carlson et al., 2000). Some example items are: “My work keeps me from my family activities more than I would like”; “When I get home from work I am often too frazzled to participate in family activities/ responsibilities”; and “The behaviours that work for me at home do not seem to be effective at work”. Carlson et al. (2000) confirmed the factor structure of the scale and generated Cronbach Alpha estimates ranging between 0.78 and 0.87 for each subscale indicating good internal consistency reliability. In a South African study, the Cronbach Alpha estimates were 0.88 for work-to-family conflict, 0.90 for family-to-work conflict, and 0.92 for overall work-family conflict, indicating good internal consistency reliability (Diner, 2014).

Gender-role beliefs

The Gendered Domestic Roles subscale of the Patriarchal Beliefs Scale (please see Appendix F) that was developed by Yoon et al. (2015) was used to measure gender-role beliefs in the home environment, specifically beliefs regarding responsibility for domestic work, finances, and child discipline. This subscale has 11 items that are answered on a 7-point Likert-type scale ranging from ‘strongly disagree’ to ‘strongly agree’. Examples of items in this scale are “A

man should be the breadwinner”, “Cleaning is mostly a woman’s job”, and “A man should be the one to discipline the children”. The Cronbach Alpha values generated in the Yoon et al. (2015) study ranged from 0.95 to 0.96 for the subscale indicating excellent internal consistency reliability. A study conducted by Tripathi (2022) examined the association between gender equality outlook and patriarchal beliefs among police constables in India and found that the Patriarchal Beliefs Scale had a Cronbach alpha of 0.97, indicating high reliability.

An adapted version of the Stereotype Beliefs about Women Managers (please see Appendix F) that was developed by Moore et al. (2004) was used to measure gender-role beliefs in the work environment. For this scale, the items were adapted by removing the word “manager” and broadening the focus to include all women in the workplace. The adapted measure also included four additional items adapted from the Women Workplace Culture Scale (Toscano et al., 2020). These items were adapted by changing them from questions to statements to match with the statements in the Moore et al. (2004) scale. The adapted measure for gender role beliefs at work had 10 items that were answered on a 7-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’. Examples of items in this measure are “Women have their ideas challenged more often than men in the workplace”, “Women have to perform much better than men in the workplace in order to succeed”, and “Men have greater job security than women in the workplace”. Moore et al. (2004) generated a Cronbach Alpha of .91 for the original six-item scale in their sample, however the psychometric properties of the adapted scale are not known.

Procedure

Collecting data from the participants involved a number of steps. Firstly, ethical clearance was requested and received from the University of the Witwatersrand Human Research Ethics Committee (non-medical). The ethics clearance number granted was MAORG/22/10 (please see Appendix I for the ethics clearance certificate). Once this was granted, the survey was set up on a suitable online survey site (Google Forms) for the participants to respond to. The invitation (please see Appendix B) and participant information sheet (please see Appendix A) were then distributed on various social media platforms such as Facebook, LinkedIn, Instagram, and Instant Messenger. In the invitation and participant information sheet, participants were told what the study was about and that participating required filling out an online survey that would take about 25 to 30 minutes to complete. They were told that their participation was completely voluntary and that there were no negative consequences if they chose not to participate. They also had the opportunity to withdraw up to the point when they

submitted their questionnaire, and their responses were anonymous. Participants were able to contact the researcher if they wanted any feedback when the study was complete or if they had any questions.

The collected data was stored securely in an MS Excel[®] spreadsheet on a password-protected computer and was only accessed by the researcher and her supervisor. Any identifying information (for example, IP addresses) was deleted from the spreadsheet immediately before this was stored. Once as many responses as possible had been collected, data analysis began.

Ethics

To ensure that ethical requirements were upheld within this study, permission to conduct the study was requested and received from the University of the Witwatersrand Human Research Ethics Committee (non-medical) before any data was collected. The ethics clearance number granted by the committee was MAORG/22/10 (please see Appendix I).

To ensure that there was informed consent (Haslam & McGarty, 2014), participants were sent an invitation (please see Appendix B) and a participant information sheet (please see Appendix A) that fully explained the purpose of the study, what participation in the study involved, that participation was completely voluntary and that participants could withdraw up to the point of submission, that responses were anonymous, and that the data would be stored securely. Participants were also asked to give formal consent by ticking a checkbox indicating that they were willing to participate in the study on a voluntary basis after having read the information about the study.

This study had no direct benefits or foreseeable risks if any individual wished to participate and individuals were free to choose not to participate. If at any point individuals wished to withdraw their participation up to the point of submission of the questionnaire, they were able to do so willingly.

Participant responses in this study were anonymous (Haslam & McGarty, 2014). No directly identifying information was asked for and in any case where information that could possibly identify the participant as an individual was obtained (for example, IP addresses) it was deleted from the dataset.

Individual feedback was not possible because the data was anonymous; but participants were able to contact the researcher to request a general summary of the findings when the research

was complete. Participants were also able to contact the researcher if they had any questions or wanted more information about the study.

During the study, all of the data that was collected was stored securely on a password-protected computer and it was only accessed by the researcher and her supervisor. Results from the study were reported in a research report submitted as part of the requirements for the researcher's degree; and may also be reported in journal articles or at conferences in the future. Participants were asked for permission for the datasheet that contains the data in anonymous form to be stored permanently and possible used for future research.

Data analysis

In this study, the data was analysed using descriptive statistics and inferential statistics that were generated by IBM SPSS Statistics® v.28 (IBM Corp, 2021).

Internal consistency reliability of the questionnaires in the study was calculated using Cronbach Alpha estimates (Field, 2017). Cronbach Alpha estimates are run to establish whether psychometric measures are internally consistent and therefore reliable in a sample because they describe “the extent to which the items in a scale measure the same construct” (Tavakol & Dennick, 2011, p.53). Cronbach Alpha estimates above 0.7 indicate acceptable internal consistency reliability (Field, 2017).

Descriptive statistics were calculated to describe the data obtained from the sample; these included frequencies and percentages for the categorical variables used to describe the sample and measures of central tendency, spread, and normality checks for the continuous variables used to describe the sample and answer the research questions (Field, 2017). For this study, normality was checked using skewness and kurtosis coefficients, histograms, and sample size (Field, 2017).

To answer the first and second research questions regarding the relationships between flexible work arrangements and work-family conflict and gender role beliefs and work-family conflict, Pearson's correlations were calculated and reported. Correlations examine the nature of the relationships between variables, including the strength, direction, and significance of these (Field, 2017). All assumptions relating to Pearson's correlations were met in the study: the variables were continuous, there were linear relationships between the variables, there were no significant outliers, and the variables were approximately normally distributed (Field, 2017).

To answer the third research question, moderated hierarchical multiple linear regressions were calculated and reported. Hierarchical multiple linear regression is a form of regression where the predictors are entered in blocks and each block represents a step (Field, 2017). Moderated multiple linear regression establishes the strength of the model for predicting a particular outcome variable as well as whether there are significant interactions that predict the outcome (Field, 2017). For hierarchical moderated multiple linear regression, the predictor and the moderator are entered in the first block, and the interaction term is entered in the next block. Simple slopes analysis can be used to explore the meaning of the interaction if this is significant (Aiken & West, 1991). Assumptions for hierarchical moderated multiple linear regression include continuous variables, independence of the variables, normality, linearity, homoscedasticity, no outliers, and no multi-collinearity (Field, 2017).

Chapter 4: Results

Introduction

This chapter will present the results of the statistical analyses that were calculated to describe the findings from the data collected and to answer the research questions. These analyses include reliability estimates for the questionnaires used in the study, descriptive statistics, correlations, and multiple regressions.

Reliabilities

Cronbach Alpha estimates were calculated for all of the variables measured by the questionnaires in the study to assess internal consistency reliability (Field, 2017). These estimates are presented in Table 1.

Table 2

Internal consistency reliability estimates

Scale/subscale	N	No. of items	α
Flexible working arrangements (flexi-time and flexi-place working arrangements)	85	9	.896
Proactive flexibility	85	3	.863
Reactive flexibility	85	4	.886
Gendered domestic roles	85	11	.919
Beliefs about women at work	85	10	.954
Time-based work interference with family	85	3	.897
Strain-based work interference with family	85	3	.884
Behaviour-based work interference with family	85	3	.804
Time-based family interference with work	85	3	.704
Strain-based family interference with work	85	3	.908
Behaviour-based family interference with work	85	3	.911
Work interference with family	85	9	.892
Family interference with work	85	9	.832
Total work-family conflict	85	18	.896

All of the Cronbach Alpha estimates for the questionnaires in the study were above .7, indicating acceptable internal consistency reliability (Field, 2017). The Cronbach Alpha

estimates for flexible working arrangements, proactive flexibility, reactive flexibility, time-based work interference with family, strain-based work interference with family, behaviour-based work interference with family, work interference with family, family interference with work, and total work family conflict were above 0.8, indicating high internal consistency reliability. The Cronbach Alpha estimates for gendered domestic roles, beliefs about women at work, strain-based family interference with work, and behaviour-based family interference with work were above 0.9, indicating excellent internal consistency reliability (Field, 2017).

Descriptive statistics

Table 3

Descriptive statistics

Variable	N	Mean	Std. Dev.	Min.	Max.	Skewness	Kurtosis
FWA	81	15.19	12.408	0	44	.804	.529
PF	85	9.06	3.774	1	15	-.056	-.974
RF	85	13.55	4.055	4	20	-.255	-.548
TB WIF	85	7.42	3.060	3	15	.378	-.374
SB WIF	85	8.20	3.169	3	15	.070	-.990
BB WIF	85	7.89	2.623	3	15	.527	.342
TB FIW	85	5.88	2.179	3	12	.706	.389
SB FIW	85	5.72	2.433	3	13	.846	.324
BB FIW	85	7.34	2.852	0	14	.135	-.373
WIF	85	23.52	7.353	9	45	.161	-.251
FIW	85	18.94	5.521	9	33	.260	-.164
Total WFC	85	42.46	11.005	18	61	-.228	-.683
GDR	85	22.64	11.720	11	56	.710	-.512
BWW	85	46.65	16.039	10	70	-.598	-.315

Key: Std. Dev. = standard deviation, Min = minimum, Max. = maximum, FWA = flexible work arrangements, PF = proactive flexibility, RF = reactive flexibility; TB = time-based, SB = strain-based, BB = behaviour-based, WIF = work interference with family, FIW = family interference with work, WFC = work-family conflict, GDR = gendered domestic role beliefs, BWW = beliefs about women in the workplace

Means, standard deviations, minimum scores, maximum scores, and skewness and kurtosis estimates for all of the continuous variables used to answer the research questions in the study are presented in Table 3.

All of the skewness estimates were between -1 and 1 and all of the kurtosis estimates were between -3 and 3, indicating that the data for all of the variables were normally distributed. The histograms (please see Appendix H) also supported this and the sample size was sufficiently large for parametric analysis (Field, 2017).

Pearson's correlations

Pearson's correlations were calculated to examine the strength, direction, and significance of the relationships between flexible work arrangements and work-family conflict (research question 1) and between gender role beliefs and work-family conflict (research question 2).

Correlations between the different flexible work arrangement scores and work-family conflict are presented in Table 4. Flexible work arrangement scores (flexi-time and flexi-place) were significantly, weakly, and negatively correlated with work interference with family ($r = -.23$, $p = .036$); time-based work interference with family ($r = -.22$, $p = .046$); and strain-based work interference with family ($r = -.24$, $p = .032$). Proactive flexibility was significantly, negatively, and weakly correlated with total work-family conflict ($r = -.26$, $p = .016$), work interference with family ($r = -.30$, $p = .005$), time-based work interference with family ($r = -.27$, $p = .012$), strain-based work interference with family ($r = -.23$, $p = .036$), and behaviour-based work interference with family ($r = -.25$, $p = .023$). Reactive flexibility was significantly, moderately, and negatively correlated with total work-family conflict ($r = -.40$, $p < .001$) and work interference with family ($r = -.42$, $p < .001$) and was significantly, weakly, and negatively correlated with time-based work interference with family ($r = -.37$, $p < .001$), strain-based work interference with family ($r = -.35$, $p < .001$), behaviour-based work interference with family ($r = -.33$, $p < .001$), family interference with work ($r = -.24$, $p = .025$), time-based family interference with work ($r = -.24$, $p = .028$), and strain-based family interference with work ($r = -.24$, $p = .029$).

Table 4

Correlation coefficients, p-values, and sample sizes for flexible work arrangements and work-family conflict

	Total	WIF	TB	SB	BB	FIW	TB	SB	BB
	WFC		WIF	WIF	WIF		FIW	FIW	FIW
FWA	-.131	-.234	-.223	-.238	-.096	.037	.131	.126	-.135
	.243	.036	.046	.032	.395	.743	.245	.264	.230
	81	81	81	81	81	81	81	81	81
PF	-.259	-.300	-.272	-.228	-.247	-.118	-.116	-.093	-.061
	.016	.005	.012	.036	.023	.282	.289	.398	.582
	85	85	85	85	85	85	85	85	85
RF	-.404	-.423	-.371	-.353	-.326	-.243	-.239	-.237	-.084
	<.001	<.001	<.001	<.001	.002	.025	.028	.029	.442
	85	85	85	85	85	85	85	85	85

FWA = flexible work arrangements, PF = proactive flexibility, RF = reactive flexibility;

WFC = work-family conflict, TB = time-based, SB = strain-based, BB = behaviour-based,

WIF = work interference with family, FIW = family interference with work

Correlations between the different gender role beliefs scores and work-family conflict are presented in Table 5. Gendered domestic role beliefs were significantly, weakly, and positively correlated with work interference with family ($r = .225, p = .039$). Beliefs about women in the workplace was not significantly correlated with any of the work-family conflict variables. Gendered domestic role beliefs and beliefs about women in the workplace were also not significantly correlated with each other ($r = -.110; p = .314$).

Table 5

Correlation coefficients, p-values, and sample sizes for gender role beliefs and work-family conflict

	Total	WIF	TB	SB	BB	FIW	TB	SB	BB
	WFC		WIF	WIF	WIF		FIW	FIW	FIW
GDR	.187	.225	.212	.148	.204	.073	.071	-.074	.149
	.087	.039	.051	.176	.062	.508	.518	.502	.172
	85	85	85	85	85	85	85	85	85
BWW	.171	.147	.011	.153	.213	.146	.041	.147	.126
	.117	.180	.918	.162	.050	.183	.709	.180	.252
	85	85	85	85	85	85	85	85	85

GDR = gendered domestic role beliefs, BWW = beliefs about women in the workplace, WFC = work-family conflict, TB = time-based, SB = strain-based, BB = behaviour-based, WIF = work interference with family, FIW = family interference with work

Hierarchical moderated multiple linear regressions

Hierarchical moderated multiple linear regressions were calculated to examine whether gender role beliefs moderated the relationship between flexible work arrangements and work-family conflict (research question 3). Gender role beliefs were measured using scores for gendered domestic role beliefs and beliefs about women in the workplace and flexible work arrangements were measured using scores for flexible work arrangements (flexi-time and flexi-place), proactive flexibility, and reactive flexibility. Only the total work-family conflict score was used to represent work-family conflict in the models.

Model 1: Flexible work arrangements, gendered domestic role beliefs, and work-family conflict

A hierarchical moderated multiple regression was calculated to examine whether gendered domestic role beliefs moderated the relationship between flexible work arrangements and work family conflict – the results are presented in Table 6, Table 7, and Table 8.

Table 6

Model summary

	N	R	R ²	Adjusted R ²	Std. Error	Sig. F Change	F	Sig.
Step 1	85	.238	.057	.032	10.903	.103	2.336	.103
Step 2	85	.283	.080	.044	10.834	.162	2.241	.090

Table 7

Collinearity diagnostics

		Tolerance	VIF	Condition index
Step 1	Constant			1.000
	FWA	.927	1.079	1.127
	GDR	.927	1.079	1.320
Step 2	Constant			1.000
	FWA	.849	1.177	1.033
	GDR	.863	1.159	1.250
	Interaction	.885	1.130	1.638

Key: FWA = flexible work arrangements, GDR = gendered domestic roles beliefs

In Table 6, the first step of the hierarchical moderated multiple regression examined whether flexible work arrangements and gendered domestic role beliefs predicted work-family conflict. The predictive model was not significant for this step ($F_{(2;78)} = 2.336$, $p = .103$) and the

coefficient of determination ($r^2 = .057$) indicated that 5.7% of the variance in work-family conflict was explained by the variance in flexible work arrangements and gendered domestic role beliefs. The second step examined whether there was a significant interaction effect. The model for this step was not significant ($F_{(3;77)} = 2.241, p = .090$) and the coefficient of determination ($r^2 = .080$) indicated that 8.0% of the variance in work-family conflict was explained by the variance in flexible work arrangements and gendered domestic role beliefs and the interaction between these.

Table 7 presents the collinearity diagnostics for both steps in the analysis. The condition index was below 30, the VIF values were below 2.5, and the tolerance values were less than 1 which indicated that multicollinearity was not a concern in the model.

Table 8 presents the model coefficients. In the first step of the analysis, flexible work arrangements ($b = -.067, p = .510$) and gendered domestic role beliefs ($b = .194, p = .075$) were not significant predictors of work-family conflict. In the second step, flexible work arrangements ($b = -.111, p = .299$) and gendered domestic role beliefs ($b = .153, p = .172$) were not significant predictors of work-family conflict and the interaction ($b = -.013, p = .162$) between these was also not a significant predictor of work-family conflict.

Table 8

Model coefficients

		B	Std. Error	Beta	t	Sig.	LCI	UCI
Step	Constant	42.131	1.212		34.771	<.001	39.719	44.543
1	FWA	-.067	.102	-.076	-.661	.510	-.271	.136
	GDR	.194	.108	.206	1.802	.075	-.020	.409
Step	Constant	41.614	1.258		33.069	<.001	39.109	44.120
2	FWA	-.111	.106	-.124	-1.045	.299	-.322	.100
	GDR	.153	.111	.162	1.379	.172	-.068	.374
	Interaction	-.013	.010	-.164	-1.411	.162	-.033	.006

Key: FWA = flexible work arrangements, GDR = gendered domestic roles beliefs

Model 2: Flexible work arrangements, beliefs about women in the workplace, and work-family conflict

A hierarchical moderated multiple regression was calculated to examine whether beliefs about women in the workplace moderated the relationship between flexible work arrangements and work family conflict – the results are presented in Table 9, Table 10, and Table 11.

Table 9

Model summary

	N	R	R ²	Adjusted R ²	Std. Error	Sig. F Change	F	Sig.
Step 1	85	.229	.053	.028	10.926	.122	2.161	.122
Step 2	85	.232	.054	.017	10.988	.730	1.465	.231

Table 10

Collinearity diagnostics

		Tolerance	VIF	Condition index
Step 1	Constant			1.000
	FWA	.999	1.001	1.027
	BWW	.999	1.001	1.057
Step 2	Constant			1.000
	FWA	.919	1.088	1.116
	BWW	.997	1.003	1.170
	Interaction	.917	1.090	1.348

Key: FWA = flexible work arrangements, BWW = beliefs about women in the workplace

In Table 9, the first step of the hierarchical moderated multiple regression examined whether flexible work arrangements and beliefs about women in the workplace predicted work-family conflict. The predictive model was not significant for this step ($F_{(2;78)} = 2.161, p = .122$) and the coefficient of determination ($r^2 = .053$) indicated that 5.3% of the variance in work-family conflict was explained by the variance in flexible work arrangements and beliefs about women in the workplace. The second step examined whether there was a significant interaction effect. The model for this step was not significant ($F_{(3;77)} = 1.465, p = .231$) and the coefficient of determination ($r^2 = .054$) indicated that 5.4% of the variance in work-family conflict was explained by the variance in flexible work arrangements and beliefs about women in the workplace and the interaction between these.

Table 10 presents the collinearity diagnostics for both steps in the analysis. The condition index was below 30, the VIF values were below 2.5, and the tolerance values were less than 1 which indicated that multicollinearity was not a concern in the model.

Table 11 presents the model coefficients. In the first step of the analysis, flexible work arrangements ($b = -.121, p = .222$) and beliefs about women in the workplace ($b = .135, p = .092$) were not significant predictors of work-family conflict. In the second step, flexible work arrangements ($b = -.131, p = .208$) and beliefs about women in the workplace ($b = .133, p = .098$) were not significant predictors of work-family conflict and the interaction ($b = .002, p = .730$) between these was also not a significant predictor of work-family conflict.

Table 11

Model coefficients

		B	Std. Error	Beta	t	Sig.	LCI	UCI
Step	Constant	42.069	1.216		34.609	<.001	39.649	44.489
1	FWA	-.121	.098	-.136	-1.230	.222	-.317	.075
	BWW	.135	.079	.188	1.705	.092	-.023	.292
Step	Constant	42.059	1.223		34.397	<.001	39.624	44.494
2	FWA	-.131	.103	-.147	-1.271	.208	-.337	.074
	BWW	.133	.080	.186	1.675	.098	-.025	.292
	Interaction	.002	.007	.040	.346	.730	-.011	.016

Key: FWA = flexible work arrangements, BWW = beliefs about women in the workplace

Model 3: Proactive flexibility, gendered domestic role beliefs, and work-family conflict

A hierarchical moderated multiple regression was calculated to examine whether gendered domestic role beliefs moderated the relationship between proactive flexibility and work family conflict – the results are presented in Table 12, Table 13, and Table 14.

Table 12

Model summary

	N	R	R ²	Adjusted R ²	Std. Error	Sig. F Change	F	Sig.
Step 1	85	.295	.087	.065	10.642	.024	3.910	.024
Step 2	85	.295	.087	.053	10.708	.995	2.575	.060

Table 13

Collinearity diagnostics

		Tolerance	VIF	Condition index
Step 1	Constant			1.000
	PF	.965	1.036	1.090
	GDR	.965	1.036	1.209
Step 2	Constant			1.000
	PF	.939	1.065	1.029
	GDR	.928	1.078	1.164
	Interaction	.946	1.057	1.391

Key: PF = proactive flexibility, GDR = gendered domestic roles beliefs

In Table 12, the first step of the hierarchical moderated multiple regression examined whether proactive flexibility and gendered domestic role beliefs predicted work-family conflict. The predictive model was significant for this step ($F_{(2;82)} = 3.910$, $p = .024$) and the coefficient of determination ($r^2 = .087$) indicated that 8.7% of the variance in work-family conflict was explained by the variance in proactive flexibility and gendered domestic role beliefs. The second step examined whether there was a significant interaction effect. The model for this step was not significant ($F_{(3;81)} = 2.575$, $p = .060$) and the coefficient of determination ($r^2 = .087$) indicated that 8.7% of the variance in work-family conflict was explained by the variance in proactive flexibility and gendered domestic role beliefs and the interaction between these.

Table 13 presents the collinearity diagnostics for both steps in the analysis. The condition index was below 30, the VIF values were below 2.5, and the tolerance values were less than 1 which indicated that multicollinearity was not a concern in the model.

Table 14 presents the model coefficients. In the first step of the analysis, proactive flexibility ($b = -.678$, $p = .033$) was a significant predictor of work-family conflict while gendered domestic role beliefs ($b = .134$, $p = .187$) was not a significant predictor of work-family conflict. In the second step, proactive flexibility ($b = -.679$, $p = .037$) was a significant predictor of work-family conflict. Gendered domestic role beliefs ($b = .134$, $p = .198$) was not a

significant predictor of work-family conflict and the interaction ($b = .000$, $p = .995$) between proactive flexibility and gendered domestic role beliefs was also not a significant predictor of work-family conflict.

Table 14

Model coefficients

		B	Std. Error	Beta	t	Sig.	LCI	UCI
Step	Constant	42.459	1.154		36.782	<.001	40.162	44.755
1	PF	-.678	.313	-.233	-2.166	.033	-1.301	-.055
	GDR	.134	.101	.143	1.332	.187	-.066	.335
Step	Constant	42.457	1.184		35.862	<.001	40.102	44.813
2	PF	-.679	.319	-.233	-2.125	.037	-1.314	-.043
	GDR	.134	.103	.143	1.297	.198	-.072	.340
	Interaction	.000	.028	-.001	-.006	.995	-.056	.056

Key: PF = proactive flexibility, GDR = gendered domestic roles beliefs

Model 4: Proactive flexibility, beliefs about women in the workplace, and work-family conflict

A hierarchical moderated multiple regression was calculated to examine whether beliefs about women in the workplace moderated the relationship between proactive flexibility and work family conflict – the results are presented in Table 15, Table 16, and Table 17.

Table 15

Model summary

	N	R	R ²	Adjusted R ²	Std. Error	Sig. F Change	F	Sig.
Step 1	85	.322	.103	.082	10.546	.011	4.731	.011
Step 2	85	.322	.104	.071	10.610	.880	3.124	.030

Table 16

Collinearity diagnostics

		Tolerance	VIF	Condition index
Step 1	Constant			1.000
	PF	.995	1.005	1.035
	BWW	.995	1.005	1.074
Step 2	Constant			1.000
	PF	.990	1.010	1.107
	BWW	.965	1.036	1.144
	Interaction	.964	1.038	1.235

Key: PF = proactive flexibility, BWW = beliefs about women in the workplace

In Table 15, the first step of the hierarchical moderated multiple regression examined whether proactive flexibility and beliefs about women in the workplace predicted work-family conflict. The predictive model was significant for this step ($F_{(2;82)} = 4.731, p = .011$) and the coefficient of determination ($r^2 = .103$) indicated that 10.3% of the variance in work-family conflict was explained by the variance in proactive flexibility and beliefs about women in the workplace. The second step examined whether there was a significant interaction effect. The model for this step was significant ($F_{(3;81)} = 3.124, p = .030$) and the coefficient of determination ($r^2 = .104$) indicated that 10.4% of the variance in work-family conflict was explained by the variance in proactive flexibility and beliefs about women in the workplace and the interaction between these.

Table 16 presents the collinearity diagnostics for both steps in the analysis. The condition index was below 30, the VIF values were below 2.5, and the tolerance values were less than 1 which indicated that multicollinearity was not a concern in the model.

Table 17 presents the model coefficients. In the first step of the analysis, proactive flexibility ($b = -.796, p = .011$) was a significant predictor of work-family conflict and beliefs about women in the workplace ($b = .131, p = .073$) was not a significant predictor of work-family conflict. In the second step, proactive flexibility ($b = -.799, p = .011$) was a significant predictor of work-family conflict. Beliefs about women in the workplace ($b = .129, p = .083$) was not a significant predictor of work-family conflict and the interaction ($b = -.003, p = .880$) between proactive flexibility and beliefs about women in the workplace was also not a significant predictor of work-family conflict.

Table 17

Model coefficients

		B	Std. Error	Beta	t	Sig.	LCI	UCI
Step	Constant	42.459	1.144		37.117	<.001	40.183	44.734
1	PF	-.796	.306	-.273	-2.604	.011	-1.404	-.188
	BWW	.131	.072	.191	1.818	.073	-.012	.274
Step	Constant	42.471	1.153		36.821	<.001	40.176	44.766
2	PF	-.799	.308	-.274	-2.593	.011	-1.413	-.186
	BWW	.129	.073	.188	1.754	.083	-.017	.275
	Interaction	-.003	.018	-.016	-.151	.880	-.039	.034

Key: PF = proactive flexibility, BWW = beliefs about women in the workplace

Model 5: Reactive flexibility, gendered domestic role beliefs, and work-family conflict

A hierarchical moderated multiple regression was calculated to examine whether gendered domestic role beliefs moderated the relationship between reactive flexibility and work family conflict – the results are presented in Table 18, Table 19, and Table 20.

Table 18

Model summary

	N	R	R ²	Adjusted R ²	Std. Error	Sig. F Change	F	Sig.
Step 1	85	.426	.181	.161	10.078	<.001	9.080	<.001
Step 2	85	.484	.234	.206	9.806	.020	8.264	<.001

Table 19

Collinearity diagnostics

		Tolerance	VIF	Condition index
Step 1	Constant			1.000
	RF	.982	1.018	1.065
	GDR	.982	1.018	1.145
Step 2	Constant			1.000
	RF	.955	1.047	1.083
	GDR	.982	1.018	1.178
	Interaction	.972	1.029	1.288

Key: RF = reactive flexibility, GDR = gendered domestic roles beliefs

In Table 18, the first step of the hierarchical moderated multiple regression examined whether reactive flexibility and gendered domestic role beliefs predicted work-family conflict. The predictive model was significant for this step ($F_{(2;82)} = 9.080, p < .001$) and the coefficient of

determination ($r^2 = .181$) indicated that 18.1% of the variance in work-family conflict was explained by the variance in reactive flexibility and gendered domestic role beliefs. The second step examined whether there was a significant interaction effect. The model for this step was significant ($F_{(3;81)} = 8.264, p < .001$) and the coefficient of determination ($r^2 = .234$) indicated that 23.4% of the variance in work-family conflict was explained by the variance in reactive flexibility and gendered domestic role beliefs and the interaction between these.

Table 19 presents the collinearity diagnostics for both steps in the analysis. The condition index was below 30, the VIF values were below 2.5, and the tolerance values were less than 1 which indicated that multicollinearity was not a concern in the model.

Table 20 presents the model coefficients. In the first step of the analysis, reactive flexibility ($b = -1.048, p < .001$) was a significant predictor of work-family conflict while gendered domestic role beliefs ($b = .126, p = .185$) was not a significant predictor of work-family conflict. In the second step, reactive flexibility ($b = -.942, p < .001$) was a significant predictor of work-family conflict and gendered domestic role beliefs ($b = .126, p = .175$) was not a significant predictor of work-family conflict. The interaction ($b = .063, p = .020$) between reactive flexibility and gendered domestic role beliefs was a significant predictor of work-family conflict.

Table 20

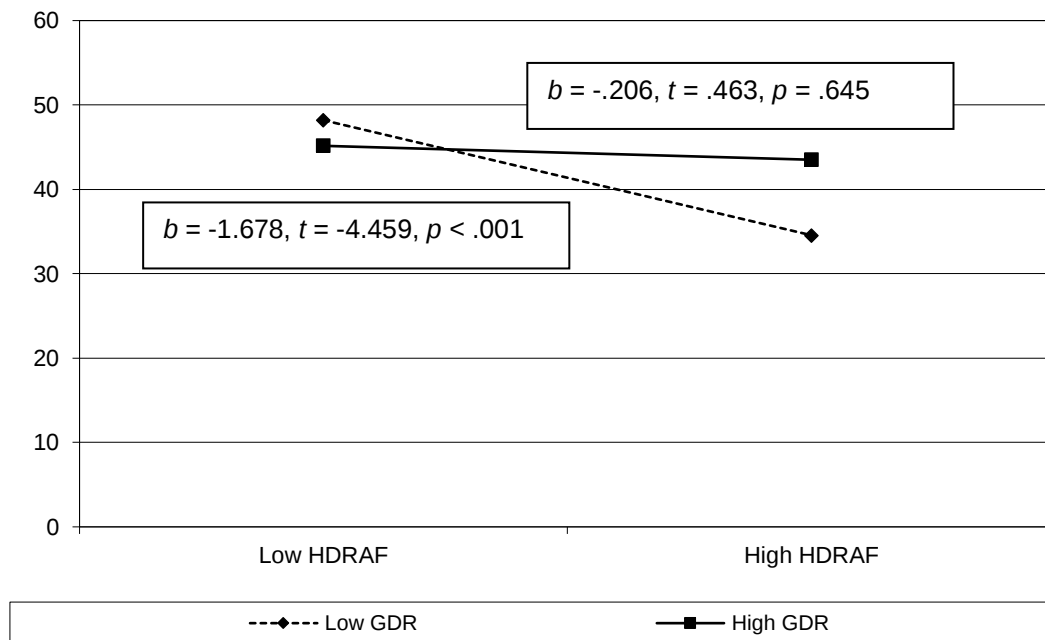
Model coefficients

		B	Std. Error	Beta	t	Sig.	LCI	UCI
Step	Constant	42.459	1.093		38.842	<.001	40.284	44.633
1	RF	-1.048	.274	-.386	-3.830	<.001	-1.593	-.504
	GDR	.126	.095	.135	1.336	.185	-.062	.315
Step	Constant	42.856	1.077		39.801	<.001	40.713	44.998
2	RF	-.942	.270	-.347	-3.488	<.001	-1.479	-.405
	GDR	.126	.092	.134	1.370	.175	-.057	.310
	Interaction	.063	.027	.234	2.369	.020	.010	.116

Key: RF = reactive flexibility, GDR = gendered domestic roles beliefs

As there was a significant interaction between reactive flexibility and gendered domestic role beliefs on work-family conflict, a simple slopes analysis was carried out. Regression lines

were plotted one standard deviation below and above the mean to represent low and high levels of gendered domestic role beliefs.



Key: HDRAF = reactive flexibility; GDR = gendered domestic role beliefs

Figure 1:
Simple slopes analysis

For participants with low levels of gendered domestic role beliefs, those who also had lower levels of reactive flexibility reported significantly higher levels of work-family conflict than those with higher levels of reactive flexibility ($b = -1.678, t = -4.459, p < .001$). For those with high levels of gendered domestic role beliefs, there was no significant difference ($b = -.206, t = .463, p = .645$) in the levels of work-family conflict that they reported regardless of whether they had high or low levels of reactive flexibility. This suggests that a low level of gendered domestic role beliefs may increase the level of work-family conflict experienced by employees who also have low reactive flexibility.

Model 6: Reactive flexibility, beliefs about women in the workplace, and work-family conflict

A hierarchical moderated multiple regression was calculated to examine whether beliefs about women in the workplace moderated the relationship between reactive flexibility and work family conflict – the results are presented in Table 21, Table 22, and Table 23.

Table 21

Model summary

	N	R	R ²	Adjusted R ²	Std. Error	Sig. F Change	F	Sig.
Step 1	85	.415	.172	.152	10.136	<.001	8.507	<.001
Step 2	85	.416	.173	.142	10.191	.735	5.648	.001

Table 22

Collinearity diagnostics

		Tolerance	VIF	Condition index
Step 1	Constant			1.000
	RF	.959	1.043	1.096
	BWW	.959	1.043	1.228
Step 2	Constant			1.000
	RF	.854	1.171	1.163
	BWW	.959	1.043	1.293
	Interaction	.886	1.128	1.569

Key: RF = reactive flexibility, BWW = beliefs about women in the workplace

In Table 21, the first step of the hierarchical moderated multiple regression examined whether reactive flexibility and beliefs about women in the workplace predicted work-family conflict. The predictive model was significant for this step ($F_{(2;82)} = 8.507, p < .001$) and the coefficient of determination ($r^2 = .172$) indicated that 17.2% of the variance in work-family conflict was explained by the variance in reactive flexibility and beliefs about women in the workplace. The

second step examined whether there was a significant interaction effect. The model for this step was significant ($F_{(3;81)} = 5.648, p = .001$) and the coefficient of determination ($r^2 = .173$) indicated that 17.3% of the variance in work-family conflict was explained by the variance in reactive flexibility and beliefs about women in the workplace and the interaction between these.

Table 22 presents the collinearity diagnostics for both steps in the analysis. The condition index was below 30, the VIF values were below 2.5, and the tolerance values were less than 1 which indicated that multicollinearity was not a concern in the model.

Table 23 presents the model coefficients. In the first step of the analysis, reactive flexibility ($b = -1.046, p = < .001$) was a significant predictor of work-family conflict and beliefs about women in the workplace ($b = .064, p = .366$) was not a significant predictor of work-family conflict. In the second step, reactive flexibility ($b = -1.013, p = .001$) was a significant predictor of work-family conflict. Beliefs about women in the workplace ($b = .064, p = .369$) was not a significant predictor of work-family conflict and the interaction ($b = -.007, p = .735$) between reactive flexibility and beliefs about women in the workplace was also not a significant predictor of work-family conflict.

Table 23

Model coefficients

		B	Std. Error	Beta	t	Sig.	LCI	UCI
Step	Constant	42.459	1.099		38.619	< .001	40.272	44.646
1	RF	-1.046	.279	-.385	-3.757	< .001	-1.600	-.492
	BWW	.064	.070	.093	.908	.366	-.076	.204
Step	Constant	42.372	1.135		37.341	< .001	40.114	44.630
2	RF	-1.013	.297	-.373	-3.413	.001	-1.603	-.422
	BWW	.064	.071	.093	.904	.369	-.077	.205
	Interaction	-.007	.020	-.036	-.339	.735	-.046	.033

Key: RF = reactive flexibility, BWW = beliefs about women in the workplace

Chapter 5: Discussion

Introduction

This chapter will present a discussion of the findings from the analyses in relation to the research questions in this study. The rest of the chapter will then discuss the conclusions and implications of the study, strengths and limitations of the study, and directions for future research.

Discussion

This study looked to explore the relationships between different types of flexible work arrangements and work-family conflict and the relationships between gender-role beliefs at home and at work and work-family conflict, as well as if the relationships between different types of flexible work arrangements and work-family conflict were moderated by gender-role beliefs at home and at work. The study was quantitative, non-experimental, correlational, and cross-sectional, and 85 participants were obtained using non-probability convenience and snowball sampling. They completed an online survey that included a self-developed demographic questionnaire and a self-developed Flexible Work Arrangements scale that included the Workplace Flexibility Scale (Halinski & Duxbury, 2020) to measure participants' levels of flexi-time and flexi-place flexibility, proactive flexibility, and reactive flexibility. The survey also included the Work-Family Conflict Scale developed by Carlson et al. (2000) to measure work-family conflict, the Gendered Domestic Roles subscale of the Patriarchal Beliefs Scale developed by Yoon et al. (2015) to measure gender-role beliefs about women at home, and an adapted version of the Stereotype Beliefs about Women Managers developed by Moore et al. (2004) to measure gender-role beliefs about women at work. One of the important findings was that all of these measures had acceptable internal consistency reliability in the study, and this provided a suitable foundation to answer the research questions.

In order to investigate the first research question to establish the relationships between different types of flexible work arrangements and work-family conflict, Pearson's correlations and multiple regression techniques were used as forms of analysis. The findings for this question were that flexi-time and flexi-place flexibility was not significantly related to and did not significantly predict overall work-family conflict, but proactive flexibility and reactive flexibility were both significantly and negatively related to and significantly predicted overall work-family conflict. Flexi-time and flexi-place flexibility was significantly and negatively

related to work interference with family, time-based work interference with family, and strain-based work interference with family, but was not significantly related to behaviour-based work interference with family or any form of family interference with work. Proactive flexibility was significantly and negatively related to all forms of work-interference with family but was not significantly related to any form of family interference with work. Reactive flexibility was significantly and negatively related to all forms of work interference with family and family interference with work except for behaviour-based family interference with work.

The finding that overall work-family conflict was not significantly related to or significantly predicted by flexi-time and flexi-place flexibility in this sample was unexpected, because previous studies have found either a positive or a negative relationship between flexible work arrangements and work-family conflict. For example, a study conducted by Russell et al. (2007) found that part-time work and flexi-time seemed to reduce work pressure and work-life conflict. Another study conducted by Conradie and Klerk (2019) amongst a sample of South African software developers found that employers who had adopted flexible work arrangements and those using flexible work arrangements found them to be very beneficial for themselves and the entire organisation. Masuda et al. (2012) found that managers working in companies that offered flexi-time were less likely to report experiencing work-family conflict. In contrast, Russell et al. (2007) found that working from home was associated with greater levels of work pressure and work-life conflict. Studies have also suggested that the increased use of technology for work purposes and remote working as a result of Covid-19 restrictions increased work-family conflict (Andrade & Petiz Louse, 2021; Ghislieri et al., 2021; Page et al., 2021). Hill et al. (2010) found that work-at-home was related to less work-family conflict but they found that their results were consistent across countries that had a more individualistic culture and that there appeared to be less benefit in countries with a more collectivist culture. South Africa is considered an individualistic and a collectivist society (Eaton & Louw, 2000), which might explain why there was no significant relationship between flexible work arrangements and overall work-family conflict in the study. Flexi-time and flexi-place flexibility was found to be significantly and negatively related to work-to-family interference in the sample, but was not significantly related to family-to-work interference. This might also explain why there was no relationship between flexi-time and flexi-place flexibility and overall work-family conflict in the study.

Importantly, Hill et al. (2010) found that perceived schedule flexibility was related to work-family conflict, which suggests that actual flexibility may be less important than perceptions

of flexibility as a coping strategy for managing overall work-family conflict. This is consistent with the findings in this study that both proactive flexibility and reactive flexibility were significantly and negatively related to overall work-family conflict. Spill-over theory and border theory can be used to explain the reasoning behind these findings (Clark, 2000; Desrochers & Sargent, 2004; Wayne et al., 2016; Xu, 2009). Employees who have lower levels of proactive flexibility may tend to experience higher levels of work demands that may then lead to these spilling over into their family lives, leading to increased levels of conflict. Similarly, with reactive flexibility, employees with lower levels of reactive flexibility may be unable to manage unexpected work or family demands, leading to spill-over into their family or work lives, creating higher levels of conflict (Halinski & Duxbury, 2020). Proactive and reactive flexibility also play a large role in managing family and work boundaries effectively (Halinski & Duxbury, 2020). Employees with high levels of proactive flexibility are more inclined to create clear boundaries between their work and family domains, proactively managing their time and resources in hopes of avoiding conflict. Employees with high levels of reactive flexibility may be able to better handle unexpected disruptions caused by blurred boundaries and conflict (Halinski & Duxbury, 2020).

In the study, all three forms of flexible work arrangements (flexi-time and flexi-place flexibility, proactive flexibility, and reactive flexibility) were significantly and negatively related to work interference with family. This supports the results obtained by Halinski and Duxbury (2020), who found that both proactive and reactive flexibility helped employees cope with work interference with family. It also suggests that both actual and perceived flexibility may be important for employees being able to manage demands from the work environment effectively (Halinski & Duxbury, 2020). Family interference with work was only significantly and negatively related to reactive flexibility, which fits with the theory because reactive flexibility is one's ability to react constructively to unpredictable family demands (Halinski & Duxbury, 2020).

The second research question from this study was about the relationships between gender-role beliefs at home and at work and work-family conflict. In order to investigate this question, Pearson's correlations and multiple regression techniques were used as forms of analysis. The findings from this were that overall work-family conflict was not significantly related to and was not significantly predicted by either gendered domestic role beliefs or beliefs about women in the workplace. Beliefs about women in the workplace were also not significantly related to

any form of work-family conflict and gendered domestic role beliefs were only significantly and positively related to work interference with family.

The findings of no relationships between gendered domestic role beliefs, beliefs about women in the workplace, and overall work-family conflict in the current study are therefore unexpected, but could be a direct result of the small sample size ($n = 85$) obtained for the study. It could also be linked to the way in which the variables were measured in the study (for example, if the measurement was not sensitive enough or if there was response bias). It is also possible that the nature of the sample played a role. A large portion of the sample was single (34.1%) and just under half of the sample (44.7%) did not have children. Most of the participants also had access to full-time (27.1%) or part-time (41.2%) domestic help. This may indicate that household responsibilities were not solely dependent on the owners of the households and the participants may therefore have experienced less work-family conflict regardless of the gender-role belief system they subscribed to.

Gendered domestic role beliefs was significantly and positively related to work interference with family. This was expected based on studies that have identified a similar relationship. Rajadhyaksha and Velgach (2015) found that work interference with family was higher for the participants in their study who prescribed to more traditional gender role beliefs. Aarntzen et al. (2021) found that mothers who held more traditional gender role beliefs experienced more guilt when they worked longer hours. This finding can be interpreted as people who have strong traditional gendered role beliefs viewing their work responsibilities as conflicting with their family responsibilities, which could lead to work interfering with their ability to participate in their family responsibilities (Collins, 2019; Davis, 2011; Kuo et al., 2018). This may be linked to role expectations, whereby traditional gender role beliefs assign primary responsibility for domestic and caregiving responsibilities to women (Aarntzen et al., 2021; Alesina et al., 2013), because a large portion of the sample in the study was female (78.8%). In South Africa, some cultures still adhere to long-standing beliefs that women are less deserving of power than men and/or that women should be responsible for the home (Afolayan, 2004; Byrnes, 1996; Gouws & Kotzé, 2007; Mokomane, 2014).

Beliefs about women in the workplace were not significantly related to any form of work interference with family or family interference with work. This finding could imply that the instrument used centred around beliefs about women in the workplace that did not directly translate into behaviours that would affect the work-family interface. Even though beliefs and

stereotypes can be seen as factors that shape an individual, these factors may not result in actions that would then interfere with work or family tasks (Shockley et al., 2017). Another reason for this finding could be that the relationships between beliefs about women in the workplace and work interference with family and family interference with work could have been influenced by organisational factors in the sample. Most employees in the sample had access to emergency family leave (80.0%) and parental leave (82.4%) and approximately half the sample had wellness/health programmes (57.6%) and employee assistance programmes (48.2%) at work. If an organisation offers flexibility and promotes work-life balance, the role of personal beliefs about women in the workplace may have less of a relationship with family-to-work interference and work-to-family interference.

The third research question looked at whether the relationships between flexible work arrangements and work-family conflict were moderated by gender role beliefs. This was analysed using hierarchical moderated multiple regression and simple slopes analysis for significant interactions. The findings for this question were that gendered domestic role beliefs did not significantly moderate the relationship between flexi-time and flexi-place flexibility and work-family conflict or the relationship between proactive flexibility and work-family conflict, but they did significantly moderate the relationship between reactive flexibility and work-family conflict. Beliefs about women in the workplace did not significantly moderate the relationships between flexi-time and flexi-place flexibility and work-family conflict, proactive flexibility and work-family conflict, or reactive flexibility and work-family conflict.

The simple slopes analysis indicated that for participants with low levels of gendered domestic role beliefs, work-family conflict was significantly higher if they also had lower levels of reactive flexibility, suggesting that a low level of gendered domestic role beliefs might increase the level of work-family conflict experienced by employees who also have low reactive flexibility. This fits with the theory about reactive coping, which suggests that employees with a low capacity to react constructively to unpredictable family demands will experience more work-family conflict (Halinski & Duxbury, 2020). Participants with lower levels of gendered domestic role beliefs might feel more responsible for managing family emergencies and demands in all situations, and their levels of work-family conflict would then be higher if they felt that they had less capacity to cope with these (Aarntzen et al., 2021; Halinski & Duxbury, 2020).

Gender-role beliefs did not moderate any of the other relationships between flexible work arrangements and work-family conflict in the study. This was not unexpected because flexi-time and flexi-place flexibility, proactive flexibility, gendered domestic role beliefs, and beliefs about women in the workplace were not significantly related to overall work-family conflict in the study. This may be due to the way in which the variables were measured in the study if the instruments were not accurate enough or if there was response bias (McGrath et al., 2010; Watson, 2015). It might also be due to the sample in the study which was quite small and might not have fully represented the population (Laher, 2016). The small sample size could be the primary reason for why there were very few significant results obtained in the study, especially for the moderation analyses.

Conclusions and implications

The results of the study indicated that both proactive and reactive flexibility were significantly related to and significantly predicted overall work-family conflict in the sample, but flexi-time and flexi-place flexibility was not significantly related to and did not significantly predict overall work-family conflict in the sample. These findings highlight how important being able to cope with work and family demands is and suggests that this may be more strongly related to experiences of work-family conflict than actual flexi-time and flexi-place work arrangements. Proactive and reactive flexibility seem to significantly influence individuals' sense of control over their work, and the findings imply that developing this sense of coping and control in employees may be important for organisations. Having proactive and reactive flexibility means that employees are able to anticipate and prepare when it comes to future challenges and also can deal with unforeseen situations that create demands between the family and work domains (Halinski & Duxbury, 2020). Improving proactive and reactive flexibility may allow for employees to be a lot more engaged and productive in their work because they may feel as though they have more control over their work and personal lives. Access to these forms of flexibility also supports the notion of work-life balance, and may lead to reduced stress levels and conflict experienced by individuals and increased feelings of psychological safety. This suggests that it may be useful for organisations to implement interventions and practices that develop flexible coping in employees as a way to reduce work-family conflict and improve wellbeing.

Beliefs about women in the workplace and gendered domestic role beliefs were not significantly related to and did not significantly predict overall work-family conflict, although gendered domestic role beliefs was significantly and positively related to work interference

with family. These findings suggest that gender role beliefs did not play much of a role in determining work-family conflict in the sample, which was unexpected because of previous studies suggesting that there are relationships between gender-role beliefs and work-family conflict. This may be due to the methods used in the study, but could also suggest that the influence of gender-role beliefs varies in different contexts and samples. Mokomane (2014) suggests that there has been progress in developing less traditional gender-role beliefs and therefore some employees may not feel as limited and constrained by these as they did previously. Employees may also have become more open to sharing family responsibilities, as well as seeking external assistance, which was prevalent in the sample characteristics.

Beliefs about women in the workplace did not moderate any of the relationships between flexible work arrangements and work-family conflict; while gendered domestic role beliefs only moderated the relationship between reactive flexibility and work-family conflict. This fits with theory suggesting that employees with a low capacity to react constructively to unpredictable family demands will experience more work-family conflict (Halinski & Duxbury, 2020). This finding suggests that it may be very important for organisations to create interventions and implement practices that support reactive flexibility in employees as a way to reduce work-family conflict.

Strengths and limitations

This study was able to adequately address each of the research questions presented and provided insight into the relationships between flexible work arrangements, work-family conflict, and gender-role beliefs. This holds the potential to inform contemporary South African workplaces and employees about different outcomes and approaches to take when dealing with the South African workforce in creating opportunities to reduce work-family conflict and increase employee well-being using flexible work arrangements. There was not much previous literature available on the topic of flexible work arrangements and work-family conflict and how this relationship is moderated by gendered domestic role beliefs and beliefs about women in the workplace in South Africa. This means that this study contributes to filling a gap in existing knowledge. The study adhered to ethical guidelines by ensuring that ethical clearance was received, that participants gave their informed consent, and that they participated in the study voluntarily. All of the assumptions for the data analyses were checked carefully and appropriate techniques were used to answer the research questions. The instruments used were also reliable in the study, and the study was carried out online, which may have allowed

for a larger geographical impact, for example, participants all over South African provinces had the ability to access the questionnaire through the survey link.

Despite this, the sample size for the study was only 85 participants which is a big limitation as it makes it hard to generalize the findings to the larger South African population of employees. The small sample size could also be the primary reason for the non-significant findings obtained in the study, especially for the moderation analyses. The small sample size also meant that it was not possible to carry out statistical analyses to establish the validity of the instruments in the study. This is a large limitation because some of the instruments were self-developed or adapted and their validity in the sample is therefore not known. The study may also have been limited in that those working within informal employment and those who are self-employed were not included, which limited the types of work represented in the sample. There was limited time available to collect data for the study, which restricted the size of the sample and ultimately limited the generalizability of the data collected. Additionally, a large portion of the sample consisted of female participants (78.8%) which may have made it difficult to assess and generalize different gender perspectives in the larger population. Validity of the instruments was not checked in the study and there may have been response bias.

Directions for future research

The results of the study suggest that flexible coping matters and could potentially be more important for reducing work-family conflict than actual flexi-time and flexi-place arrangements. This is especially important to explore further in the South African context where hybrid work and flexible work are on the rise. There is, therefore, a need for future researchers to conduct research on different ways organisations could improve flexible coping and on how exactly this influences experiences of work-family conflict and employee wellbeing and productivity compared to actual flexible work arrangements. Reactive and proactive flexibility have not been explored much in South Africa and this is something that researchers could look into through the South African lens. Researchers could also build on this study by exploring employee perspectives around work-family conflict, proactive flexibility, reactive flexibility, and possibly gender-role beliefs at home and at work qualitatively, as this would allow for a more in-depth perspective on different understandings of the variables and the role played by culture. Researchers could conduct a longitudinal study that examines the relationships between different types of flexible work arrangements and

work-family conflict in order to identify how these are related on a long-term basis. Additionally, researchers could explore the relationships between different types of flexible work arrangements, work-family conflict, and gender-role beliefs at home and at work in larger and more diverse samples over more time and using more resources to increase the significance and generalizability of the findings. They could also expand on intersectionality and diversity by obtaining participants from different ethnicities, socio-economic backgrounds, language groups, and race groups in South Africa. These factors could be explored further in order to draw on different experiences and parallels and differences to better understand experiences of flexible work arrangements, work-family conflict, and gender role beliefs. By exploring these different research directions, researchers can advance their understanding of proactive flexibility and reactive flexibility and work-family conflict which can guide the creation of policies, practices, and interventions that support work-family integration, employee well-being, and organisational effectiveness.

Conclusion

In conclusion, the findings from the study indicated that reactive and proactive flexibility were significantly related to and predicted work-family conflict. This highlighted the importance of individuals feeling able to cope with work and family demands. The study opens room for future research, due to the need to explore the role of flexible coping to reduce work-family conflict, as well as the potential impact of proactive and reactive flexibility within a South African context. Researchers should explore employees' perspectives by conducting longitudinal studies and including a more diverse sample in order to enhance the generalizability of the findings. Overall, this study sheds light on how organisations could better support employees in reducing work-family conflict and enhancing overall well-being.

Reference list

- Aarntzen, L., Van Der Lippe, T., Van Steenberghe, E. F., & Derks, B. (2020). How individual gender role beliefs, organizational gender norms, and national gender norms predict parents' work-family guilt in Europe. *Community, Work & Family*, 24(2), 120–142. <https://doi.org/10.1080/13668803.2020.1816901>
- Acmc, E. S. C. (2021). *Limitations and weaknesses of quantitative research*. Bschorly. <https://bscholarly.com/limitations-and-weaknesses-of-quantitative-research/>
- Adisa, T. A., Aiyenitaju, O., & Adekoya, O. D. (2021). The work–family balance of British working women during the COVID-19 pandemic. *Journal of Work-applied Management*, 13(2), 241–260. <https://doi.org/10.1108/jwam-07-2020-0036>
- Afolayan, F. (2004). *Culture and customs of South Africa*. Retrieved from <http://publisher.abc-clio.com/9780313058264>
- Aiken, L. A., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.
- Alesina, A., Giuliano, P., & Nunn, N. (2013). On the origins of gender roles: Women and the plough. *Quarterly Journal of Economics*, 128(2), 469-530. <https://doi.org/10.1093/qje/qjt005>
- Allen, T. D., Johnson, R. F., Kiburz, K. M., & Shockley, K. M. (2012). Work-family conflict and flexible work arrangements: Deconstructing flexibility. *Personnel Psychology*, 66(2), 345–376. <https://doi.org/10.1111/peps.12012>
- Andrade, C., & Petiz Lousã, E. (2021). Telework and work–family conflict during COVID-19 lockdown in Portugal: The influence of job-related factors. *Administrative Sciences*, 11(3), 103. <https://doi.org/10.3390/admsci11030103>
- Arndt, C., Davies, R., Gabriel, S., Harris, L. R., Makrelov, K., Robinson, S., Levy, S. B., Simbanegavi, W., Van Seventer, D., & Anderson, L. (2020). Covid-19 lockdowns, income distribution, and food security: An analysis for South Africa. *Global Food Security*, 26, 100410. <https://doi.org/10.1016/j.gfs.2020.100410>
- Baltes, B. B., Clark, M., & Chakrabarti, M. (2009). Work-life balance: The roles of work-family conflict. *ResearchGate*. <https://www.researchgate.net/publication/248703172>

- Başlevent, C., & Kirmanoğlu, H. (2017). Gender inequality in Europe and the life satisfaction of working and non-working women. *Journal of Happiness Studies*, 18(1), 107–124. <https://doi.org/10.1007/s10902-016-9719-z>
- Bowen, P., Govender, R., Edwards, P., & Cattell, K. (2017). Work-related contact, work–family conflict, psychological distress and sleep problems experienced by construction professionals: An integrated explanatory model. *Construction Management and Economics*, 36, 1–22. <https://doi.org/10.1080/01446193.2017.1341638>
- Björntoft, S., Hallman, D., Mathiassen, S. E., Larsson, J., & Jahncke, H. (2020). Occupational and individual determinants of work-life balance among office workers with flexible work arrangements. *International Journal of Environmental Research and Public Health*, 17(4), 1418. <https://doi.org/10.3390/ijerph17041418>
- Bočková, K. & Lajčin, D. (2021). Home office and its influence on employee motivation. *Journal of Management and Marketing Review*, 6(2) 94 – 109. [https://doi.org/10.35609/jmmr.2021.6.2\(1\)](https://doi.org/10.35609/jmmr.2021.6.2(1))
- Brown, D. (2002). The role of work and cultural values in occupational choice, satisfaction, and success: A theoretical statement. *Journal of Counselling & Development*, 80(1), 48–56. <https://doi.org/10.1002/j.1556-6678.2002.tb00165.x>
- Byrnes, R. M. (1996). *South Africa—Women in Society*. Country Studies. <http://countrystudies.us/south-africa/58.htm>
- Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and initial validation of a Multidimensional Measure of Work–Family Conflict. *Journal of Vocational Behavior*, 56(2), 249–276. <https://doi.org/10.1006/jvbe.1999.1713>
- Carlson, D. S., Grzywacz, J. G., & Michele Kacmar, K. (2010). The relationship of schedule flexibility and outcomes via the work-family interface. *Journal of Managerial Psychology*, 25(4), 330-355.
- Carroll, N., & Conboy, K. (2020). Normalising the “new normal”: Changing tech-driven work practices under pandemic time pressure. *International Journal of Information Management*, 55. <https://doi.org/10.1016/j.ijinfomgt.2020.102186>
- Casale, D., & Shepherd, D. (2021.). The gendered effects of the COVID-19 crisis and ongoing lockdown in South Africa: Evidence from NIDS-CRAM Waves. *National Income Dynamics Study Coronavirus Rapid Mobile Survey (NIDS-CRAM) Working Paper*. 1—5. 40.

- Cerrato, J., & Cifre, E. (2018). Gender inequality in household chores and work-family conflict. *Frontiers in Psychology*, 9, 1330. <https://doi.org/10.3389/fpsyg.2018.01330>
- Chandola, T., Booker, C. L., Kumari, M., & Benzeval, M. (2019). Are flexible work arrangements associated with lower levels of chronic stress-related biomarkers? A study of 6025 employees in the UK Household Longitudinal Study. *Sociology*, 53(4), 779–799. <https://doi.org/10.1177/0038038519826014>
- Chetty, P. (2022). *Limitations and weakness of quantitative research methods*. Knowledge Tank. <https://www.projectguru.in/limitations-quantitative-research/>
- Choi, J. (2008). Work and family demands and life stress among Chinese employees: The mediating effect of work–family conflict. *The International Journal of Human Resource Management*, 19(5), 878–895. <https://doi.org/10.1080/09585190801993885>
- Ciarniene, R., & Vienazindiene, M. (2018). Flexible work arrangements from generation and gender perspectives: Evidence from Lithuania. *The Engineering Economics*, 29(1). <https://doi.org/10.5755/j01.ee.29.1.19247>
- Clark SC. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations*, 53(6):747-770. doi:10.1177/0018726700536001
- Collins, C. J. (2019). Who to blame and how to solve it: Mothers’ perceptions of work–family conflict across Western policy regimes. *Journal of Marriage and Family*, 82(3), 849–874. <https://doi.org/10.1111/jomf.12643>
- Conradie, W. J., & de Klerk, J. J. (2019). To flex or not to flex? Flexible work arrangements amongst software developers in an emerging economy. *SA Journal of Human Resource Management*, 17. <https://doi.org/10.4102/sajhrm.v17i0.1175>
- Cowan, R., & Hoffman, M. F. (2007). The flexible organization: How contemporary employees construct the work/life border. *Qualitative Research Reports in Communication*, 8(1), 37–44. <https://doi.org/10.1080/17459430701617895>
- Crane, D. R., & Hill, J. E. (2009). *Handbook of families and work: Interdisciplinary perspectives*. University Press of America.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage.
- Crosbie, T., & Moore, J. (2004). Work–life balance and working from home. *Social Policy and Society*, 3(3), 223–233. <https://doi.org/10.1017/s1474746404001733>

- Davis, S. N. (2011). Support, demands, and gender ideology: Exploring work–family facilitation and work–family conflict among older workers. *Marriage and Family Review*, 47(6), 363–382. <https://doi.org/10.1080/01494929.2011.594216>
- Desrochers, S., & Sargent, L. D. (2004). Boundary/border theory and work-family integration. *Organization Management Journal*, 1(1), 40–48. <https://doi.org/10.1057/omj.2004.11>
- Dhanpat, N., Makgamatha, K. A., Monageng, R., & Sigawuki, K. (2022). COVID-19: Employee experience and adjustment at a state owned company in South Africa. *SAGE Open*, 12(2), 215824402211024. <https://doi.org/10.1177/21582440221102435>
- Dicke, A.-L., Safavian, N., & Eccles, J. S. (2019). Traditional gender role beliefs and career attainment in STEM: A gendered story? *Frontiers in Psychology*, 10, 1053. <https://doi.org/10.3389/fpsyg.2019.01053>
- Diner, Y (2014). *Justice perceptions and work-family balance in the work and home environments* [Master of Arts research report, University of the Witwatersrand]. WiredSpace ETD Collection. <https://wiredspace.wits.ac.za/items/f5979f76-7090-49a9-95bf-b46f083988bb>
- Dizaho, E. K., Salleh, R., & Abdullah, A. (2017). Achieveing work life balance through flexible work schedules and arrangements. *Global Business & Management Research*, 9, 455–465.
- Eaton, L., & Louw, J. (2000). Culture and self in South Africa: Individualism-collectivism predictions. *The Journal of Social Psychology*, 140(2), 210-217.
- Eldridge, D., & Nisar, T. M. (2011). Employee and organizational impacts of flexitime work arrangements. *Relations Industrielles*, 66(2), 213–234. <https://doi.org/10.7202/1006144ar>
- Field, A. (2017). *Discovering statistics using IBM SPSS Statistics* (5th ed.). Sage.
- French, K. A., Dumani, S., Allen, T. D., & Shockley, K. M. (2018). A meta-analysis of work-family conflict and social support. *Psychological Bulletin*, 144(3), 284-314. <https://doi.org/10.1037/bul0000120>.
- Fouche, I., & Andrews, G. (2022). “Working from home is one major disaster”: An analysis of student feedback at a South African university during the Covid-19 lockdown. *Education and Information Technologies*, 27(1), 133-155.
- Ghislieri, C., Molino, M., Dolce, V., Sanseverino, D., & Presutti, M. (2021). Work-family conflict during the Covid-19 pandemic: teleworking of administrative and technical staff

- in healthcare. An Italian study. *La Medicina del lavoro*, 112(3), 229–240.
<https://doi.org/10.23749/mdl.v112i3.11227>
- Goduka, N. (2012). From positivism to indigenous science: A reflection on world views, paradigms, and philosophical assumptions. *Africa Insight*, 41(4), 123-138.
<https://hdl.handle.net/10520/EJC119962>
- Gouws, A., & Kotzé, H. (2007). Women in leadership positions in South Africa: The role of values. *Politikon*, 34(2), 165–185. <https://doi.org/10.1080/02589340701715273>
- Grice, M. M., McGovern, P. M., & Alexander, B. H. (2008). Flexible work arrangements and work-family conflict after childbirth. *Occupational Medicine*, 58(7), 468–474. <https://doi.org/10.1093/occmed/kqn090>
- Hattingh, S. (2018). Preparing the workforce for the Fourth Industrial Revolution. *Skills at Work: Theory and Practice Journal*, 9(1), 1-13.
- Halinski, M., & Duxbury, L. (2020). Workplace flexibility and its relationship with work-interferes-with-family. *Personnel Review*, 49(1), 149-166. <https://doi.org/10.1108/PR-01-2019-0048>
- Haslam, S.A., & McGarty, C. (2014). *Research methods and statistics in psychology* (2nd ed.). Sage.
- Hill, E. J., Erickson, J. J., Holmes, E. K., & Ferris, M. (2010). Workplace flexibility, work hours, and work-life conflict: Finding an extra day or two. *Journal of Family Psychology*, 24(3), 349–358. <https://doi.org/10.1037/a0019282>
- Hirschi, A. (2018). The Fourth Industrial Revolution: Issues and implications for career research and practice. *Career Development Quarterly*, 66(3), 192–204. <https://doi.org/10.1002/cdq.12142>
- Hofstede insights. (2022). *What about South Africa*. <https://www.hofstede-insights.com/country/south-africa/#:~:text=South%20Africa%2C%20with%20a%20score,and%20their%20immediate%20families%20only>.
- Horowitz, J. M., Parker, K., & Stepler, R. (2017, October 18). *Wide partisan gaps in U.S. over how far the country has come on gender equality*. Pew Research Center’s Social & Demographic Trends Project. <https://www.pewresearch.org/social-trends/2017/10/18/wide-partisan-gaps-in-u-s-over-how-far-the-country-has-come-on-gender-equality/>
- IBM Corp. (2021). *IBM SPSS Statistics for Windows, Version 28*. IBM Corp.

- Jaga, A., & Bagraim, J. (2017). Work-family conflict among Hindu mothers in South Africa. *International Journal of Manpower*, 38(8), 1086-1101. <https://doi.org/10.1108/IJM-12-2013-0280>
- John, W. (2017). Flexible working hours and organizational productivity: Exploring the potential linkage. *AIMA Journal of Management and Research*, 11(4), 1-7.
- Johnston, E. L. (2015). South African clinical psychology's response to cultural diversity, globalisation and multiculturalism: a review. *South African Journal of Psychology*, 45(3), 374–385. <https://doi.org/10.1177/0081246315575648>
- Judge, T. A., Ilies, R., & Scott, B. A. (2006). Work–family conflict and emotions: Effects at work and at home. *Personnel Psychology*, 59(4), 779-814.
- Kaushik, M., & Guleria, N. (2020). The impact of pandemic COVID-19 in workplace. *European Journal of Business and Management*, 12(15), 1–10.
- Khuzwayo, Z. (2016). Separate space: An approach to addressing gender inequality in the workplace. *Journal of International Women's Studies*, 17(4), 91-101.
- Korsten, D. (2020, July 28). *How Covid-19 has fast-tracked the fourth industrial revolution (4IR)*. SERR Energy. <https://serr.co.za/how-covid-19-has-fast-tracked-the-fourth-industrial-revolution-4ir>
- Kim, H., & Gong, Y. (2016). Effects of work–family and family–work conflicts on flexible work arrangements demand: a gender role perspective. *International Journal of Human Resource Management*, 28(20), 2936–2956. <https://doi.org/10.1080/09585192.2016.1164217>
- Kim, H., Kim, Y., & Kim, D. (2017). Negative work–family/family–work spillover and demand for flexible work arrangements: the moderating roles of parenthood and gender. *International Journal of Human Resource Management*, 30(3), 361–384. <https://doi.org/10.1080/09585192.2016.1278252>
- Kim, J. H., & Ling, C. S. (2001). Work-family conflict of women entrepreneurs in Singapore. *Women in Management Review*, 16(5), 204–221. <https://doi.org/10.1108/09649420110395692>
- Kossek, E. E., & Michel, J. S. (2011). Flexible work schedules. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology, Vol. 1. Building and developing the organization* (pp. 535–572). American Psychological Association. <https://doi.org/10.1037/12169-017>

- Kuo, P. X., Volling, B. L., & Gonzalez, R. (2018). Gender role beliefs, work–family conflict, and father involvement after the birth of a second child. *Psychology of Men and Masculinity*, 19(2), 243–256. <https://doi.org/10.1037/men0000101>
- Laher, S. (2016). Ostinato rigore: Establishing methodological rigour in quantitative research. *South African Journal of Psychology*, 46(3), 316–327. <https://doi.org/10.1177/0081246316649121>
- Livingston, B., & Judge, T. A. (2008). Emotional responses to work-family conflict: An examination of gender role orientation among working men and women. *Journal of Applied Psychology*, 93(1), 207–216. <https://doi.org/10.1037/0021-9010.93.1.207>
- Lourel, M., Ford, M. T., Edey, G. C., Guéguen, N., & Hartmann, A. (2009). Negative and positive spillover between work and home: Relationship to perceived stress and job satisfaction. *Journal of Managerial Psychology*, 24(5), 438–449. <https://doi.org/10.1108/02683940910959762>
- Mahlaba, S. C. (2020). Reasons why self-directed learning is important in South Africa during the COVID-19 pandemic. *South African Journal of Higher Education*, 34(6), 120–136.
- Matli, W. (2020). The changing work landscape as a result of the Covid-19 pandemic: insights from remote workers life situations in South Africa. *International Journal of Sociology and Social Policy*, 40(9/10), 1237–1256. <https://doi.org/10.1108/ijssp-08-2020-0386>
- Masuda, A. D., Poelmans, S. A. Y., Allen, T. D., Spector, P. E., Lapierre, L. M., Cooper, C. L., Abarca, N., Brough, P., Ferreiro, P., Fraile, G., Lu, L., Lu, C.-Q., Siu, O. L., O’Driscoll, M. P., Simoni, A. S., Shima, S., & Moreno-Velazquez, I. (2012). Flexible work arrangements availability and their relationship with work-to-family conflict, job satisfaction, and turnover intentions: A comparison of three country clusters: work-to-family conflict across countries. *Applied Psychology*, 61(1), 1–29. <https://doi.org/10.1111/j.1464-0597.2011.00453.x>
- McCombes, S. (2019, September 19). *An introduction to sampling methods*. Scribbr. <https://www.scribbr.com/methodology/sampling-methods/>
- McGrath, R. E., Mitchell, M. G. E., Kim, B. S., & Hough, L. M. (2010). Evidence for response bias as a source of error variance in applied assessment. *Psychological Bulletin*, 136(3), 450–470. <https://doi.org/10.1037/a0019216>

- Mehta, P. (2022). Work alienation as a mediator between work from home-related isolation, loss of task identity and job insecurity amid the COVID-19 pandemic. *International Journal of Workplace Health Management*, 15(3), 287-306.
- Meier, C., & Hartell, C. (2009). Handling cultural diversity in education in South Africa. *SA-eDUC journal*, 6(2), 180-192.
- Mjoli, T., Dywili, M., & Dodd, N. (2013). Demographic determinants of work-family conflict among female factory workers in South Africa. *Journal of Economics, Business and Management*, 39–41. <https://doi.org/10.7763/JOEBM.2013.V1.9>
- Moore, A. W., & Wong, W. (2006). *Multiple regression: An overview*. ScienceDirect Topics. <https://www.sciencedirect.com/topics/social-sciences/multiple-regression>
- Moore, S., Grunberg, L., & Greenberg, E. (2004). Development and validation of the Stereotype Beliefs about Women Managers Scale. *Institute of Behavioral Science*.
- Mokomane, Z. (2009, September). Work-family conflict and gender equality in South Africa. In *26th IUSSP International Population Conference, Marrakech, Morocco, 27th September–2nd October*.
- Mokomane, Z. (2014). Work-family interface as a policy issue in sub-Saharan Africa. *Work–family interface in Sub-Saharan Africa*, 3-15.
- Namayandeh, H., Yaacob, S. N., & Juhari, R. (2010). The effect of gender role orientation on work interference with family (WIF) and family interference with work (FIW) among married female nurses in Shiraz-Iran. *Asian Culture and History*, 2(2), 165.
- Naidoo, A. V., & Jano, R. (2003). Role conflict of South African women in dual-career families. *Psychological Reports*, 93(3), 683–686. <https://doi.org/10.2466/pr0.2003.93.3.683>
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family–work conflict scales. *Journal of Applied Psychology*, 81(4), 400.
- Nupen, D., & Jagernath, J. (2022). Invisible barriers: Societal norms versus female workplace progression. In E. T. Pereira, C. Costa, & Z. Breda, (Eds.), *Proceedings of the 5th International Conference on Gender Research*, 5(1), 163-170. <https://doi.org/10.34190/icgr.5.1.155>
- Nwekpa, K. C., Offor, P. G., & Ezezue, B. O. (2020). Work schedule flexibility and employee commitment: a study of Nigerian Breweries, Ama, Enugu, Nigeria. *International Journal of Development and Management Review*, 15(1), 1-16.

- Odendaal, N. (2006). Towards the digital city in South Africa: Issues and constraints. *Journal of Urban Technology*, 13(3), 29–48. <https://doi.org/10.1080/10630730601145997>
- Opie, T. J., & Henn, C. M. (2013). Work-family conflict and work engagement among mothers: Conscientiousness and neuroticism as moderators. *SA Journal of Industrial Psychology*, 39(1), 1–12.
- Page, K. J., Nastasi, A., & Voyles, E. (2021). Did you get that thing I sent you? Mediating effects of strain and work-family conflict on the telepressure and burnout relationship. *Stress and Health*, 37(5), 928-939.
- Postelnicu, L., & Câlea, S. (2019). The Fourth Industrial Revolution. Global risks, local challenges for employment. *Montenegrin Journal of Economics*, 15(2), 12.
- Qualtrics (2023, August 14). Sample size calculator. <https://www.qualtrics.com/blog/calculating-sample-size/>
- Rahman, M. M., Abdul, M., Mansor, Z. D., Ali, N. A., Samuel, A. B., Uddin, M. J., Ogiri, I.A., & Rahaman, M. S. (2018). Effect of work-family conflict on job satisfaction of academicians of private universities in Bangladesh: a structural equation modeling approach. *Journal of Advanced Research in Social and Behavioral Sciences*, 10(1), 1-8.
- Roehling, P. V., Moen, P., & Batt, R. (2003). Spillover. *Faculty publications - Human Resource Studies*. Paper 24. <http://digitalcommons.irl.cornell.edu/hrpubs/24>.
- Roz, & Roz. (2016). How to minimize work-family conflict | SkyPrep. *SkyPrep LMS*. <https://skyprep.com/2014/05/09/how-to-minimize-work-family-conflict/>
- Russell, H., O'Connell, P. J., & McGinnity, F. (2009). The impact of flexible working arrangements on work–life conflict and work pressure in Ireland. *Gender, Work & Organization*, 16(1), 73–97.
- Saungweme, R. (2010). *Work-family culture and border permeability in the context of work-family border theory* (Doctoral dissertation, University of the Witwatersrand).
- Schiff, F. W. (1983). Flexiplace: An idea whose time has come. *IEEE Transactions on Engineering Management*, 30(1), 26–30. <https://doi.org/10.1109/TEM.1983.6448641>
- Shockley, K. M., Shen, W., DeNunzio, M. G., Arvan, M. L., & Knudsen, E. I. (2017). Disentangling the relationship between gender and work–family conflict: An integration of theoretical perspectives using meta-analytic methods. *Journal of Applied Psychology*, 102(12), 1601–1635. <https://doi.org/10.1037/apl0000246>

- Simkus, J. (2023). *Cross-sectional study: Definition, designs & examples*. Simply Psychology. <https://www.simplypsychology.org/what-is-a-cross-sectional-study.html>
- Singaram, S., & Mayer, C. (2022). The influence of the Fourth Industrial Revolution on organisational culture: An empirical investigation. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.919157>
- Skilton, M., & Hovsepian, F. (2018). *The 4th Industrial Revolution*. In Springer eBooks. <https://doi.org/10.1007/978-3-319-62479-2>
- Srivastava, M. (2011). Workplace flexibility: Implications for developmental opportunities and work-family conflicts. *Psychological Studies*, 56(3), 311–317. <https://doi.org/10.1007/s12646-011-0096-8>
- Stamm, I., Bernhard, F., Hameister, N., & Miller, K. (2022). Lessons from family firms: The use of flexible work arrangements and its consequences. *Review of Managerial Science*, 17(1), 175–208. <https://doi.org/10.1007/s11846-021-00511-7>
- Standen, P., Daniels, K., & Lamond, D. (1999). The home as a workplace: Work–family interaction and psychological well-being in telework. *Journal of Occupational Health Psychology*, 4(4), 368.
- Stangor, C. (2014). *Research methods for the behavioral sciences*. Cengage Learning.
- Stiegler, N., & Bouchard, J. (2020). South Africa: Challenges and successes of the COVID-19 lockdown. *Annales Médico-psychologiques*, 178(7), 695–698. <https://doi.org/10.1016/j.amp.2020.05.006>
- Toscano, F., Giusino, D., & Pordanjani, T.R. (2020). Revisiting the Women Workplace Culture Scale: Validation and psychometric properties of a three-factor structure in an Iranian study sample. *European Journal of Investigation in Health, Psychology, and Education*, 10, 915-934. doi:10.3390/ejihpe10030065.
- Townsend, C. H., Kray, L. J., & Russell, A. G. (2023). Holding the belief that gender roles can change reduces women’s work–family conflict. *Personality and Social Psychology Bulletin*. <https://doi.org/10.1177/01461672231178349>
- Waples, E. P., & Brock Baskin, M. E. (2021). Not your parents’ organization? Human resource development practices for sustainable flex work environments. *Advances in Developing Human Resources*, 23(2), 153–170. <https://doi.org/10.1177/1523422320982933>

- Watson, R. (2015). Quantitative research. *Nursing Standard*, 29(31), 44–48. <https://doi.org/10.7748/ns.29.31.44.e8681>
- Wayne, S. J., Lemmon, G., Hoobler, J. M., Cheung, G. W., & Wilson, M. L. (2016). The ripple effect: A spillover model of the detrimental impact of work-family conflict on job success. *Journal of Organizational Behavior*, 38(6), 876–894. <https://doi.org/10.1002/job.2174>
- Weideman, M. (2018). *The influence of flexible work arrangements on employee engagement: An explorative study*. [Master Research project, University of Pretoria].
- Williams, K. J., & Alliger, G. M. (1994). Role stressors, mood spillover, and perceptions of work-family conflict in employed parents. *Academy of Management Journal*, 37(4), 837-868.
- Willie, M. M., & Skosana, E. (2021). The effect of working from home as a result of Covid-19. *Annual Clinical Medical Case Report*, 7(5), 1-3.
- Xu, L. (2009). View on work-family linkage and work-family conflict model. *International Journal of Business and Management*, 4(12). <https://doi.org/10.5539/ijbm.v4n12p229>
- Yoon, E., Adams, K., Hogge, I., Bruner, J. P., Surya, S., & Bryant, F. B. (2015). Development and validation of the Patriarchal Beliefs Scale. *Journal of Counseling Psychology*, 62(2), 264-279. <http://dx.doi.org/10.1037/cou0000056>
- Young, M. E. M. (2020). Leisure pursuits in South Africa as observed during the COVID-19 pandemic. *World Leisure Journal*, 62(4), 331–335. <https://doi.org/10.1080/16078055.2020.1825252>
- Zakaria, N., & Ismail, Z. (2017). The consequences of work-family conflict and the importance of social supports to reduce work-family conflict among employees. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 2(2), 322504. <https://doi.org/10.47405/mjssh.v2i2.41>

Appendix A: Participant Information Sheet

[Department letterhead to be inserted]

Date

Hello.

My name is Tashana Paulser and I am a student currently completing my Masters in Organisational Psychology at the University of the Witwatersrand. As part of the requirements for my degree, I am conducting research. My research aims to explore the relationships between flexible work arrangements, work-family conflict, and gender-role beliefs in a sample of South African employees. This may help to develop better understandings that can be used as a base for creating policies and interventions in the workplace.

Participants for this study need to be South African employees who are over the age of 18 and who are employed within an organisation and who have internet access. If you meet these criteria, I would like to ask you to please consider participating in my study.

Participating will require you to access and complete a set of online questionnaires at a convenient time for you. These questionnaires should take approximately 20 to 30 minutes to complete and you are asked to do this within the next three to four weeks. Once you have answered the questionnaires, you can submit the completed answers online.

Participation is completely voluntary and you will not be advantaged or disadvantaged in any way whether you choose to complete the questionnaires or not. There are no direct benefits or foreseeable risks for participating in this study. Submission of the completed questionnaire will be regarded as consent to participate in the study. No identifying information, such as your name or the name of your organisation, will be asked for and you will therefore be completely anonymous. Your responses will remain confidential and your anonymity is guaranteed as no identifying information or IP addresses will be recorded.

Results for the study will be reported in a research report and possibly in journals or conference papers as well. You will be able to obtain feedback for the study in the form of a summary of the general results; individual feedback will not be possible as the data is anonymous. With your permission, we would also like to store your responses permanently in anonymous, electronic form and to possibly use this for future research projects.

If you have any questions or concerns, please feel free to contact me or my supervisor as per the details below. Ethical queries can also be directed to: The University of the Witwatersrand Human Research Ethics Committee (non-medical): 011-717-1408; email: hrecnon-medical@wits.ac.za

Thank you for taking the time to consider participating in this study.

Yours sincerely

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I have read the details of this study and consent to participate in the study on a voluntary basis.
I also understand that I may withdraw at any point up to submission.

Yes	No
-----	----

Appendix B: Invitation

Hi,

My name is Tashana Paulser and I am a Masters student in Organisational Psychology. I am carrying out a study that explores the relationships between flexible work arrangements, work-family conflict, and gender-role beliefs in a sample of South African employees. To get data for the study, I am asking South African employees who are over the age of 18 with Internet access and who are employed within an organisation to please fill out some online questionnaires.

I would really appreciate if you would consider participating in my study!

Please follow the link below which will take you to an online survey with the participant information sheet and questionnaires: [link address to be inserted]

If you know of anyone else who meets the requirements above and who might be interested in participating in the study, please pass this invitation on to them as well.

Thank you so much!!

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Appendix C: Demographic Questionnaire

Please answer the questions below. These are for descriptive and analytic purposes only.

1. What is your age in years?
2. Which of the following best describes you?

Male	Female	Undefined	Other (please specify):
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3. Which of the following best describes you?

Asian	Black	Coloured	Indian	White	Other (please specify):
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4. What is your home language?
5. Which of the following best describes you?

Single	In a relationship	Engaged	Married	Divorced	Other (please specify):
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6. How many children do you have (if none, please put 0)?
7. Which of the following best describes you?

Living alone	Living with a partner	Living with a partner and a child/children	Living with a child/children only	Living with close family	Living with close family, a partner, and a child/children	Living with close family and a child/children	Other (please specify):
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8. How many people live in your household including you?
9. What is your occupation?
10. What field/ industry do you work in?
11. How long have you worked in your current organisation?
12. What is your position in your current organisation?

13. How long have you worked in your current position?

14. Which of the following policies/ programmes are present in your organisation?

	Yes	No
Parental leave (paternity/maternity)		
Emergency family leave		
Child care facilities		
Child care assistance		
Work-family seminars		
Employee assistance programmes		
Wellness/health programmes		
University/school funding/savings programmes (for self)		
University/school funding/savings programme (for family)		

15. Do you employ anyone to help you at home?

	Yes	No
Domestic worker (full-time)		
Domestic worker (part-time)		
Au pair/ child-minder		
Gardener		
Driver		
Other (please specify):		

Appendix D: Flexible Work Arrangements Questionnaire

1. Which of the following best describes your current employment?

Full-time	Part-time	Temporary	Other (please specify):
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2. Approximately how many hours do you work a week?
3. Approximately how many hours do you work a day?
4. How often are the following allowed by your employer?

	Every day	Several days a week	Once a week	A few times a month	Less than once a month	Not allowed
Flexible working hours i.e. you can vary the times when you work						
Compressed work week i.e. you can work longer hours on some days and then not work on other days at all						
Time-in-lieu i.e. you can work approved overtime and then take time off when you would normally be working						
Reduced hours for a limited period i.e. you can reduce the amount of hours you work for a set time period						
Job-sharing i.e. you complete only part of the work required for a particular role and are paid accordingly and the role is divided with another employee/ other employees						
Any other arrangement with varied working hours						
Working from home i.e. you can work from your place of residence						
Telecommuting i.e. you can work remotely from any location you choose aside						

from an official place of work using technology						
Any other arrangement with a flexible work location						

5. How easy is it for you.....?

	Very difficult (1)	Difficult (2)	Neither easy nor difficult (3)	Easy (4)	Very easy (5)
To vary your working hours (i.e. arrival and departure times)					
To spend some of your regular work day working at home					
To arrange your work schedule (i.e. shifts, overtime) to meet personal/family commitments					
To take a day off work when a child or relative is sick					
To take a day off work when an elderly relative or family member needs you					
To take holidays when you want					
To interrupt your work day for personal/family reasons and then return					

Appendix E: Work-Family Conflict Scale

	Strongly Disagree (1)	Disagree (2)	Neutral/ Unsure (3)	Agree (4)	Strongly Agree (5)
1) My work keeps me from my family activities more than I would like.					
2) The time I must devote to my job keeps me from participating equally in household responsibilities and activities.					
3) I have to miss family activities due to the amount of time I must spend on work responsibilities.					
4) When I get home from work I am often too frazzled to participate in family activities/ responsibilities.					
5) I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.					
6) Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy.					
7) The problem-solving behaviours I use in my job are not effective in resolving problems at home					
8) Behaviour that is effective and necessary for me at work would be counterproductive at home					
9) The behaviours I perform that make me effective at work do not help me to be a better parent/ spouse/ family member					
10) The time I spend on family responsibilities often interferes with my work responsibilities.					
11) The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career.					

12) I have to miss work activities due to the amount of time I must spend on family responsibilities					
13) Due to stress at home, I am often preoccupied with family matters at work.					
14) Because I am often stressed from family responsibilities, I have a hard time concentrating on my work					
15) Tension and anxiety from my family life often weakens my ability to do my job.					
16) The behaviours that work for me at home do not seem to be effective at work.					
17) Behaviour that is effective and necessary for me at home would be counterproductive at work.					
18) The problem-solving behaviour that works for me at home does not seem to be as useful at work.					

Appendix F: Gender-Role Beliefs Scales

	Strongly Disagree (1)	Somewhat Disagree (2)	Disagree (3)	Neutral/ Unsure (4)	Agree (5)	Somewhat Agree (6)	Strongly Agree (7)
1) A man should be the breadwinner							
2) Cleaning is mostly a woman's job							
3) Cooking is mostly a woman's job							
4) A man should be the one to discipline the children							
5) A woman should be the one who does most of the child-rearing							
6) A man should control the household finances							
7) A woman should be the one to do the housework							
8) A man is the head of the household							
9) A man should make the rules of the house							
10) Women should be more responsible for domestic chores than men							
11) A woman should be the primary caretaker for children							

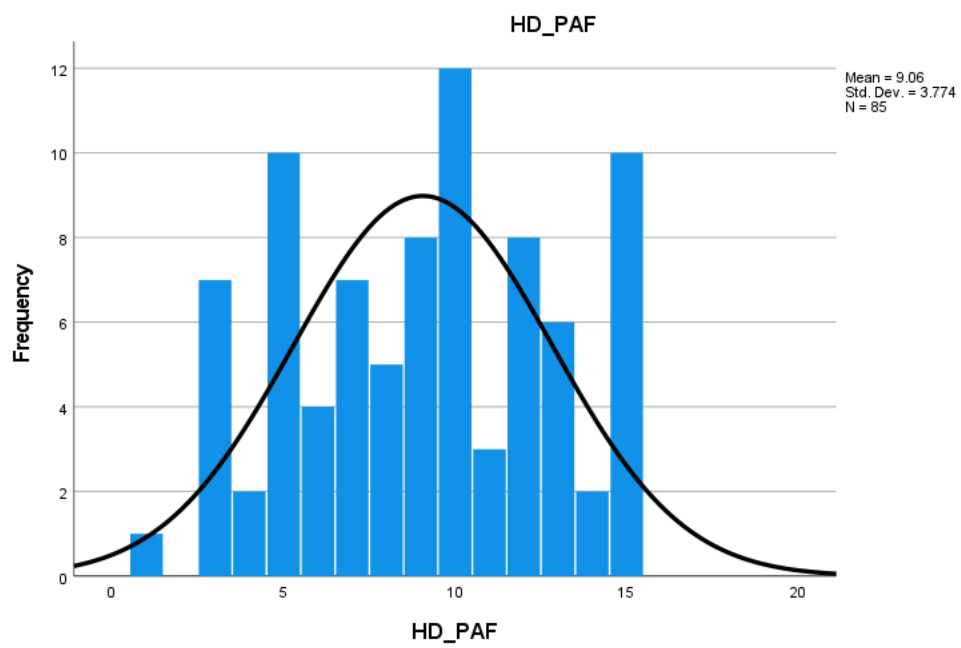
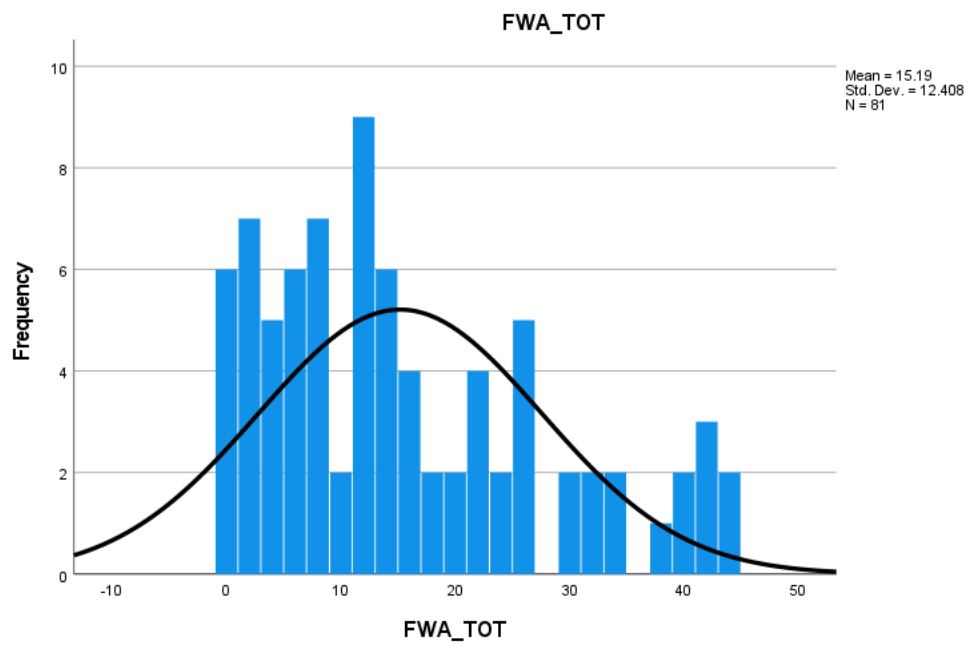
	Strongly Disagree (1)	Somewhat Disagree (2)	Disagree (3)	Neutral/ Unsure (4)	Agree (5)	Somewhat Agree (6)	Strongly Agree (7)
1) Women have their ideas challenged more often than men in the workplace							

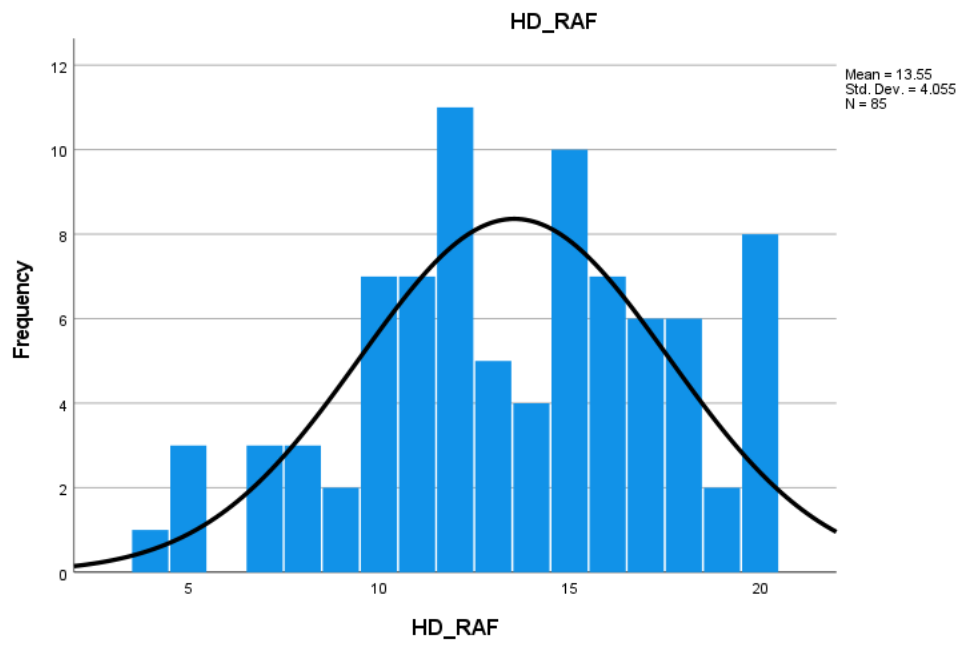
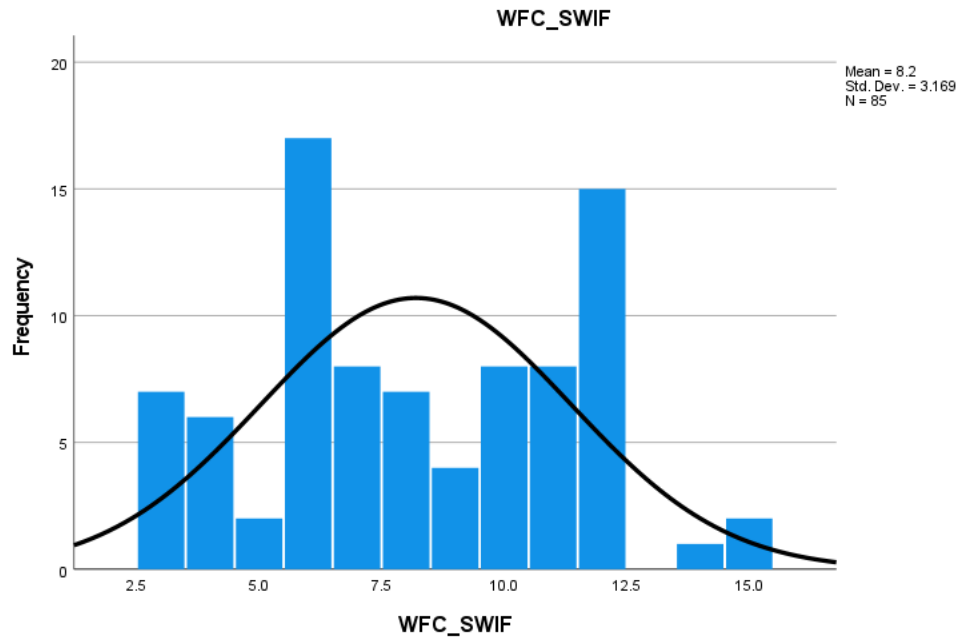
2) Women have to perform much better than men in the workplace in order to succeed							
3) Women must behave in a typically 'masculine' way in the workplace in order to be taken seriously							
4) Compared to men, women must continually prove themselves in the workplace							
5) Women have their work judged more critically than men in the workplace							
6) Compared to men, women are often uncomfortable taking credit for their successes in the workplace							
7) *Women have fewer opportunities for professional development in the workplace than men							
8) *Men receive more organisational support than women in the workplace							
9) *Men have greater job security than women in the workplace							
10) *It is easier for a man to be himself at work than it is for a woman to be herself at work							

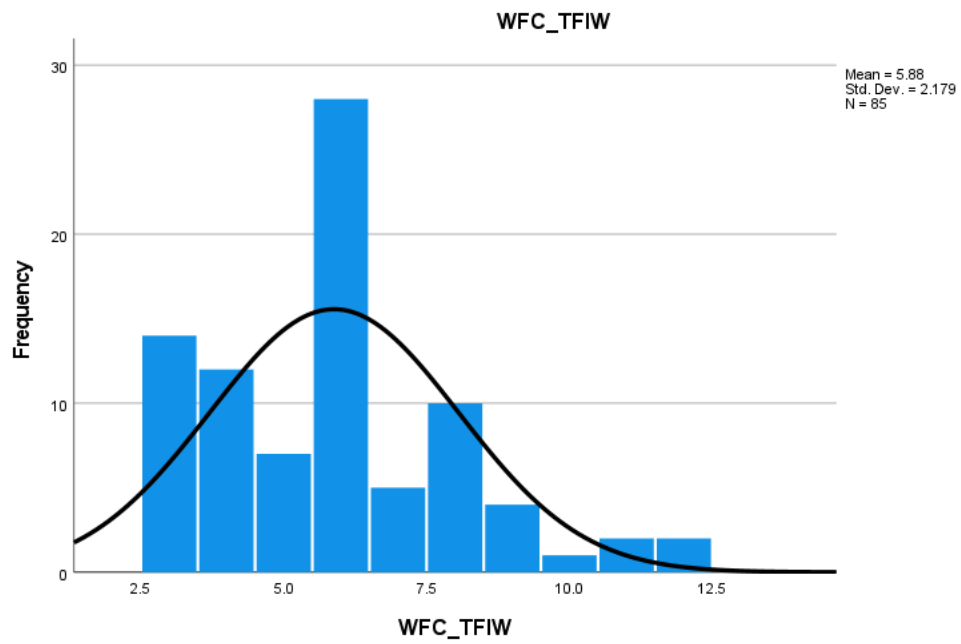
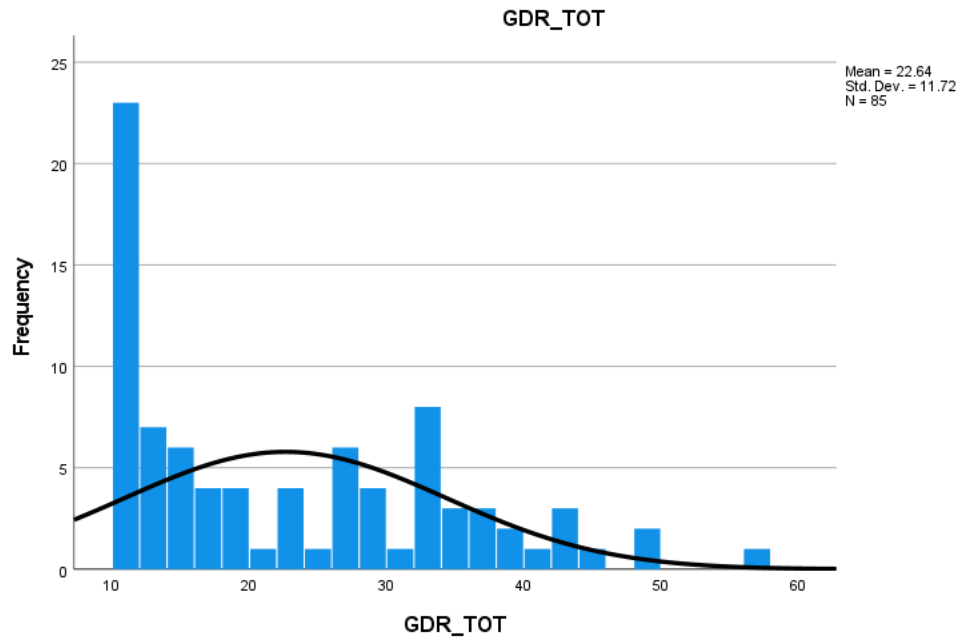
Table 1 - Appendix G : Demographic information for the sample (N = 85)

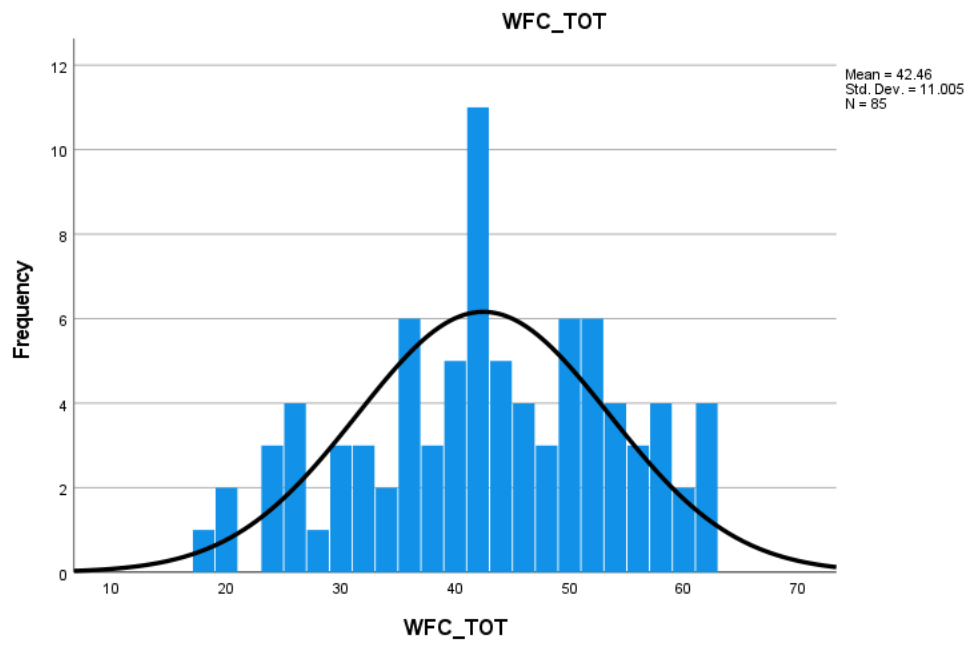
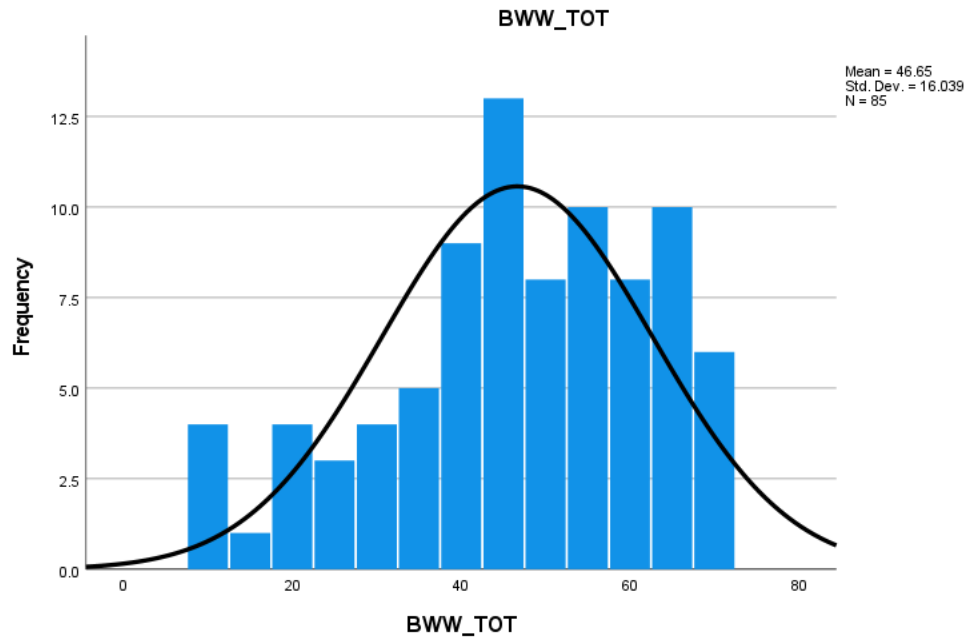
		Freq.	%			Freq.	%
Age	35 and below	43	50.6	Gender	Female	67	78.8
	36 and above	41	48.2		Male	18	21.2
	Missing	1	1.2				
Race	Asian	1	1.2	Relation- ship status	Divorced	3	3.5
	Black	54	63.5		Relationship	20	23.5
	Coloured	10	11.8		Married	33	38.8
Home language	Afrikaans	2		Number of children	Single	29	34.1
	English	43	2.4		None	38	44.7
	French	1	50.6		1	19	22.4
	IsiXhosa	5	1.2	Living status	2	16	18.8
	isiZulu	17	5.9		3	9	10.6
	sePedi	2	20		4	1	1.2
	seSotho	6	2.4		Missing	2	2.4
	seTswana	4	7.1		Alone	15	17.6
	Shona	1	4.7		Child/children only	10	11.8
	siSwati	1	1.2		Partner only	8	9.4
	Xitsonga	1	1.2		Partner & children	28	32.9
	English & isiZulu	1	1.2		Close family	17	20
	English & Shona	1	1.2		Close family & children	2	2.4
Current type of employ- ment	Full-time	78	91.8		Partner, children, close family	3	3.5
	Part-time	2	2.4		Roommates/friends	2	2.4
	Temporary/ contract	5	5.9	Number in house- hold	1	14	16.5
					2	16	18.8
Tenure	Two or less years	48	56.5		3	18	21.2
	Two or more years	37	43.5		4	19	22.4
					5	11	12.9
					6	6	7.1
					7	1	1.2

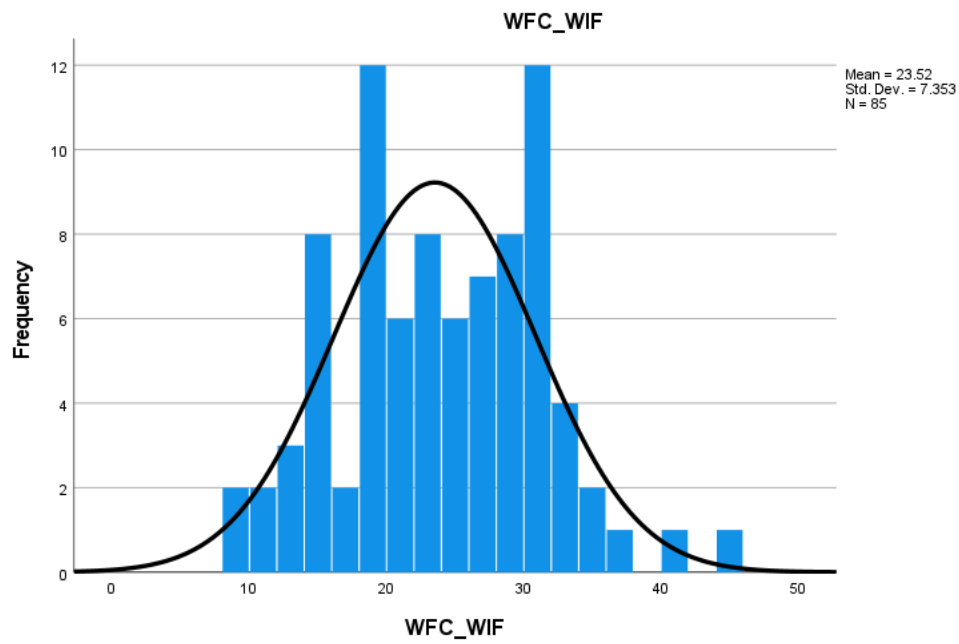
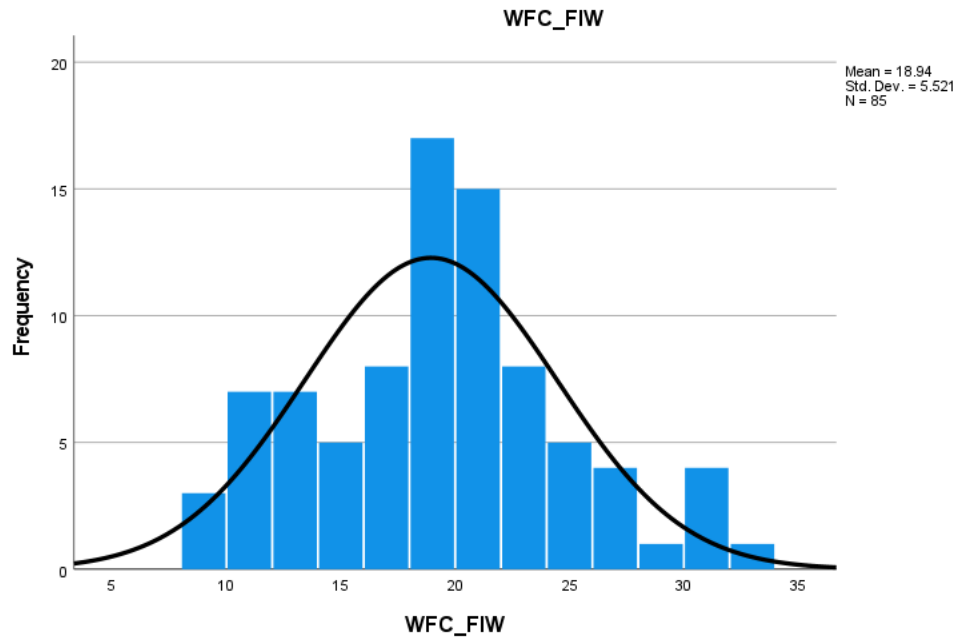
Appendix H – Histograms indicating reliabilities

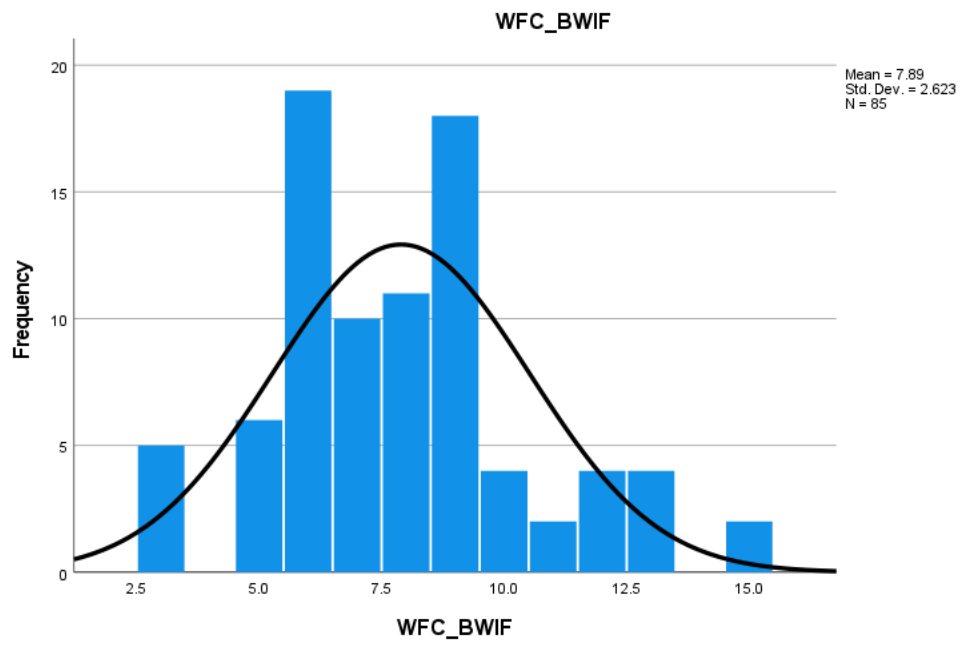
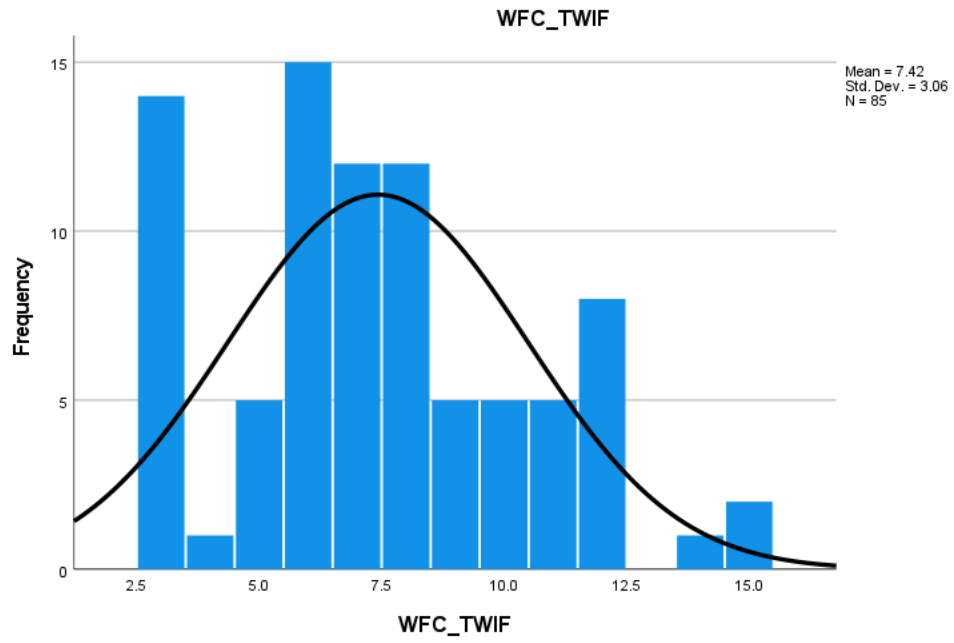


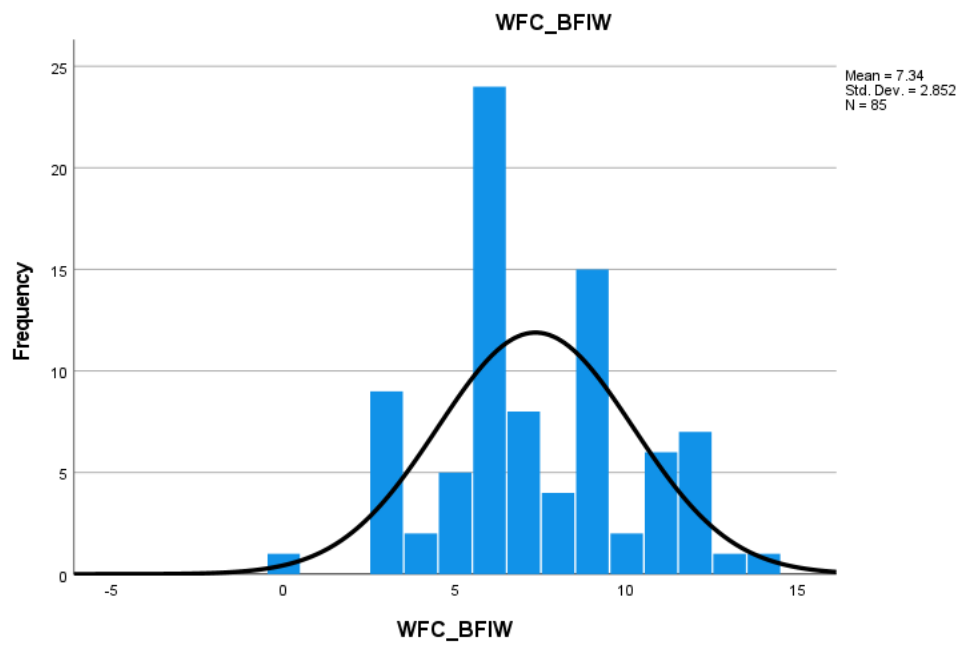
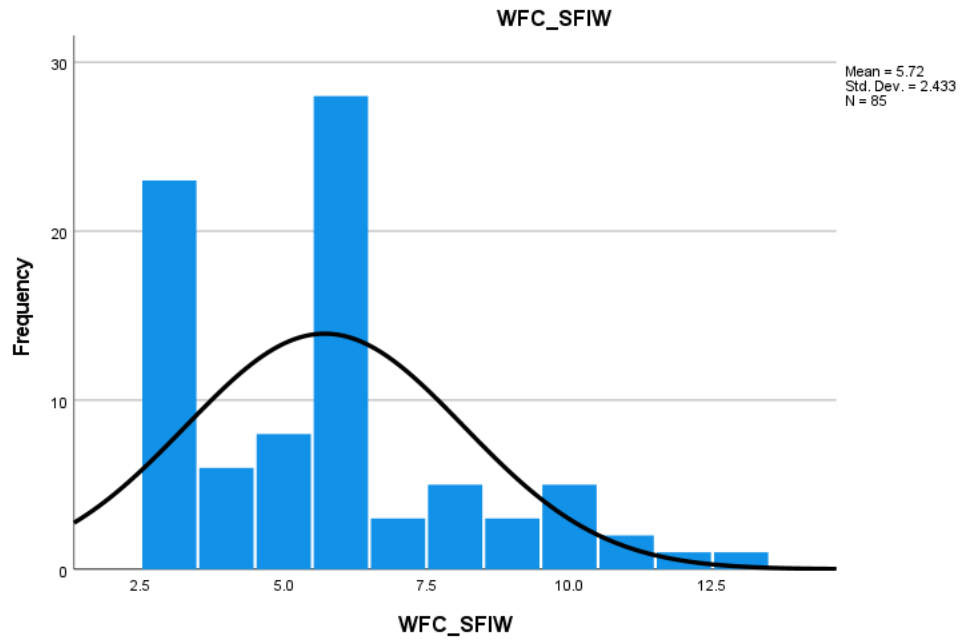












Appendix I – Ethical Clearance Certificate



SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT ETHICS COMMITTEE **CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)**

CLEARANCE CERTIFICATE:

PROTOCOL NUMBER: MAORG/22/10

PROJECT TITLE:

Flexible work arrangements, work-family conflict, and gender-role beliefs.

INVESTIGATOR

Paulser Tashana (1655733)

SCHOOL/DEPARTMENT OF INVESTIGATOR

SHCD/Psychology

DATE CONSIDERED

13 July 2022

DECISION OF THE COMMITTEE

Approved unconditionally

RISK LEVEL

Low Risk

EXPIRY DATE

31 December 2024

ISSUE DATE OF CERTIFICATE

11 August 2022

CHAIRPERSON

(Prof. Karen Milner)

cc: Dr. Nicky Israel (Supervisor)

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

Signature

Date

22 / 08 / 2022

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES